CLIPSAL
by Schneider Electric

# CONTROL SYSTEMS CATALOGUE

INTERNATIONAL EDITION 2007/2008

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dynamic labelling technology™

Labelling your switches has never been easier with Dynamic Labelling Technology. Each scene title can be customised to suit the new or existing C-Bus system. Featuring eight reprogrammable switches over two pages with an LCD backlit 64 x 128 pixel screen, the new DLT switch range will help keep a home and building automation system organised.

CLIPSAL®

by Schneider Electric

# Red, blue and green with envy.

A new world of colour is at your fingertips. The flush mounted colour touch screen is fully customisable and gives you the ultimate control of any scene or device connected to a C-Bus home/building automation system. Everything else will soon be turning red, blue and green with envy!

CLIPSAL®
by Schneider Electric

# evolution

When Alfred Gerard took the bold step of establishing Clipsal in 1920, few could have imagined just how potent and enduring his imagination would be.

The intervening eight and a half decades have seen us carve out an enviable track record in the area of technological innovation and product development across Asia and around the world.

With Clipsal joining the Schneider Electric family, the unrivalled tradition of pioneering genuinely groundbreaking solutions is further reinforced.

1920

1935

1956

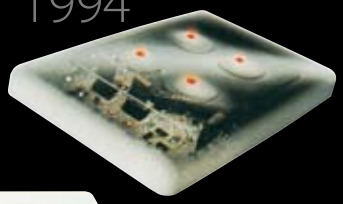
1974

1976

1982

1984

1994



1996

1997

2000

2001

1920 Clipsal announced its arrival in the electrical industry with an innovative CLIPS ALL system that revolutionized the wiring and cabling process.

1935 Launched the world's first Combination Switch Socket, setting another benchmark for the industry.

1956 Launched a fire-retardant socket, the first in industry to enhance safety.

1974 Established as Australia's undisputed leader of electrical accessories, Clipsal once again demonstrated its commitment to quality and innovation by pioneering the deployment of computerized production management.

1976 C-Classic, the Asia's first unbreakable switch was born. Clipsal lead the market by launching the first range of electrical accessories made of polycarbonate.

1982 With the introduction of its Lifesaver® Residential Current Devices, Clipsal offered homeowners previously undreamt-of industrial-level heavy duty circuit protection.

1984 Years before remote controllers for TVs and appliances became commonplace, Clipsal already deployed an intelligent infrared (IR) sensor that had opened up exciting new possibilities for lighting control automation.

1994 Launched Clipsal's first-generation C-Bus technology setting new benchmarks in building automation.

1996 Introduced Mega Dolly Series which redefined the high-end market in Asia, transforming switches into an element for interior design.

1997 Introduced graphic surrounds which promptly fit with different size dollies, providing flexibility to interior designers in home décor.

2000 Clipsal was appointed the Official Provider for the Sydney Olympics.

2001 Launched C-Spectra with a unique double surround and multi-colour dolly setting a new standard for mix and match.

2002 Launched NEO intelligent switches which was awarded the Australia's prestigious AEEMA Award.

2003 Launched distinctive NEO C-Metro switches, the first to deploy LEDs into mechanical switches in the market.

Launched ULTI switches with avant-garde style and patent unique EZinstall true retrofit technology put sophisticated lighting control automation at people's fingertips. ULTI has become the new flagship series for aesthete's appetite.

Launched Clipsal Titanium, a major breakthrough in the previously staid data and structured cabling market, it has redefined standards in the data networking industry by incorporating usability and style as key design elements.

In late 2003, Clipsal joined Schneider Electric, one of the world's biggest electrical companies.

2008

product design award 2008

2002

2003

Schneider Electric

ZENcelo be in-standing

2007

Clipsal Residential Solution

Clipsal Hotel Solution

impress™ mechanism

iso-motion-press

2004

2005

2006

2004 Launched C-Concept, setting new standard in design and quality

ULTI won the "iF Product Design Award, China" in the Building Materials category.

2005 ULTI was awarded the coveted "iF Design Award Germany".

Clipsal C-Bus technology went wireless and further consolidated Clipsal's leadership in large-scale building and home automation solutions.

2006 Clipsal Residential Solution was launched, offering an unrivalled range of seven levels of scalable solutions.

Clipsal Hotel Solution was launched, helping hotels in the world to offer an uniquely enriching experience for their guests.

Invented the patented mechanism of "impress" (iso-motion-press), and started the paradigm shift in switch design.

2007 ZENcelo, the revolutionary Full-Flat switch, was launched. The Full-Flat form factor is now available in everyday electromechanical switches.

TruGlobal socket, the most compatible socket in the world was launched, which complies with the IEC 60884-1:2002 standard – the first in its type and class.

EPIC Organiser was launched, which is a plug-and-play convergence hub to upgrade hotel guests rooms to become, personal enterainment revelations for digital age travellers.

2008 ZENcelo won the iF Product Design Award 2008.

Impressive as they are, these achievements are just the beginning. We are already hard at work perfecting our next generation of ever more

innovative products and Solutions.

CLIPSAL®

by Schneider Electric

# Introduction to Control Systems

**The availability of low cost, powerful microprocessors for building and home control and management systems has created unprecedented customer expectations for increased control, connectivity and integration of electrical and low voltage systems.**

Control Systems, a business unit dedicated to supplying end-to-end building management, integrated control and intelligent wiring solutions, has the products, solutions and programs to help meet these expectations. Control Systems provides complete end-to-end solutions, with products catering to any type or size of installation.

The flagship product of Control Systems is C-Bus, a low cost network control system. C-Bus is an industry standard for applications such as power & energy management, lighting control and architectural dimming control, smart home applications, remote control, high power switching & demand shedding and is widely recognized as being one of the most feature rich and cost effective control system solutions in the world.

Control Systems' entry into the integrated control, monitoring and networking solutions market has been an outstanding success. Control Systems has surpassed all expectations to become a major player in the thriving integrated control, monitoring and networking solutions industry.

With solutions ranging from power and lighting control, dimming, energy management, access control, CCTV, security, home automation, residential cabling, electrical safety & software, Control Systems can supply the systems expected for modern commercial buildings, hotels and homes.

Control Systems provides high quality and comprehensive solutions to cater to all the requirements of both installers and end users alike. Control Systems' pursuit of solution excellence does not end with innovative products and leading edge solutions, but is demonstrated through our commitment to working closely with consultants, installers and customers to ensure a successful end result that complies with international standards. Control Systems offer comprehensive training and accreditation programs to consultants and installers and our innovative product and warranty programs provide end users with complete peace of mind.

Control Systems programs are active in over 25 different countries around the world, with local stocking, support, training and accreditation programs to ensure the highest standard of service at a local level, making Control Systems truly "Your Global Partner in Control & Low Voltage Systems".

*C-Bus & EZinstall Wireless Technology*

*C-Bus Colour Touch Screen*

*Dynamic Labelling Technology™*

# C-Bus Technology

# Colour Options

## C-Bus Technology

**Standard Finish**

| | Plastic | | | | | | | Glass | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Colour Options** | White Electric | Soft Grey | Desert Sand | Cream | Brown | Black | Battleship Grey | White | Cream | Black | Mid Brown |
| **Ordering Code** | WE | SG | DS | CM | BR | BK | GB | GF | 380 | 680 | 780 |
| C-Bus ULTI | - | - | - | - | - | - | - | ✔ | ✔ | ✔ | ✔ |
| Wireless ULTI | - | - | - | - | - | - | - | ✔ | ✔ | ✔ | ✔ |
| C-Bus NEO | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - |
| Wireless NEO | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - |
| 2000 Series | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - |
| C2000 Classic | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - |
| SC2000 Slimline | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - |
| E2000 Series | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - | - | - |

**C-Graphics Finish**

| Colour Options | Mahogany Wood | Bird's Eye Wood | Red Mahogany Wood | Ajax White Marble | Alpine Black Marble | Brazilian Black Marble | Dancing Rain | Purple Dream | Checkers | Sun Gold Electroplated | Silver Mirror Electroplated | Gun Metal Electroplated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ordering Code** | MW | BW | RW | WM | GM | BM | DA | PA | CA | GE | SE | UE |
| C2000 Classic | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| E2000 British | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |

**C-Spectra Finish**

| Colour Options | Black | White | Smoke | Red | Green | Blue | Red | Green | Blue | Champagne | Gold | Silver |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ordering Code** | BK | WE | SC5 | SC1 | SC1 | SC1 | SP1 | SP1 | SP1 | SD1 | SD1 | SD1 |
| E2000 British | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |

**Metal Finish**

| Colour Options | Brushed Aluminium | Brushed Brass | Chrome | Gold | Gun Metal Metal | Stainless Steel Clip-on | Polished Brass Clip-on | Stainless Steel Screw-on | Polished Brass Screw-on | Polished Stainless Steel | Polished Brass | Powder Coated Grey |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ordering Code** | BA | BB | CH | GD | GM | SS | BS | W,SS | W,BS | S | B | GY |
| C2000 Classic | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - |
| SC2000 Slimline | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - |
| SL2000 Eclipse | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - | - |
| ESM Range | - | - | - | - | - | - | - | - | - | - | - | ✔ |
| Reflection Series | - | - | - | - | - | - | - | - | - | ✔ | - | - |
| Metal Plate Series | - | - | - | - | - | - | - | - | - | ✔ | ✔ | - |

## EZinstall Technology

**Standard Finish**

| Colour Options | Brushed Silver | Pearl White | Champagne Gold | Crystal Glass | White | Battleship Grey |
|---|---|---|---|---|---|---|
| **Ordering Code** | BS | PW | CG | GL | WW | GS |
| EZinstall ULTI Family | ✔ | ✔ | ✔ | ✔ | - | - |
| EZinstall NEO Family | - | - | - | - | ✔ | ✔ |

**Cover Plate Finish**

| Colour Options | Brushed Silver | Pearl White | Champagne Gold | Crystal Glass | Silver Mirror | Silver Hairline | Black Mirror | Black Hairline | Metallic Yellow | Metallic Light Blue | White | Battleship Grey |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ordering Code** | BS | PW | CG | GL | 301 | 302 | 303 | 304 | 305 | 306 | WW | GS |
| EZinstall ULTI Family | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | - | - |
| EZinstall NEO Family | - | - | - | - | - | - | - | - | - | - | ✔ | ✔ |

face the future

# special ordering sheet

## Ordering your neo switch:

when ordering your special neo switches, it is important that you complete the order code details correctly. There are a variety of colours to choose from for the three interchangeable parts of the switch assembly *(see the diagram to the right)*.

An example of a special switch and the correct way to order it is shown below. Take a moment to read through it to ensure you face the future with the switch that best suits your décor.

## Order example:

If you decide on an 8 button / 4 rocker switch with a White Outer Surround, a Silver Inner Surround and White Rocker Switches, the Order Code would be:

**5058NL-282**

**Key Combination**

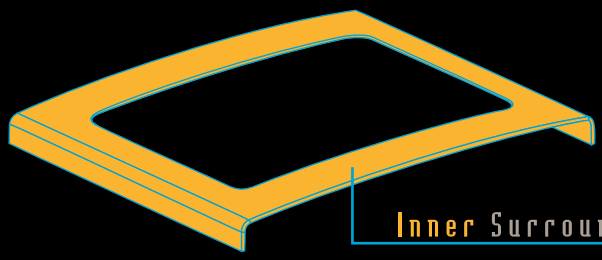
| | |
|---|---|
| 2 | 2 button / 1 rocker switch |
| 4 | 4 button / 2 rocker switch |
| 8 | 8 button / 4 rocker switch |

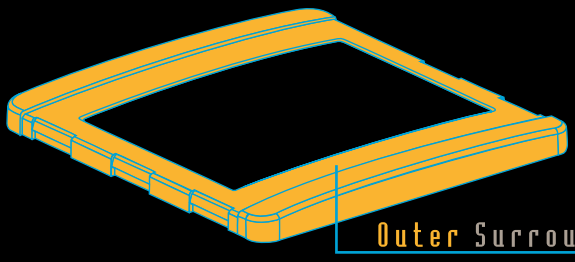
**Outer Surround Colour**

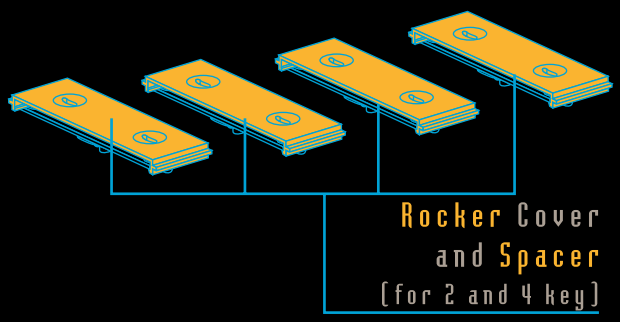
**Inner Surround Colour**

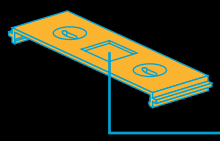
**Rocker Cover and Spacer Colour**

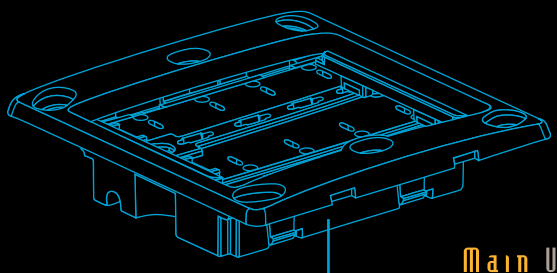
| Colour Selection | Code |
|---|---|
| Battleship Grey | 1 |
| White | 2 |
| Cream | 3 |
| Soft Grey | 4 |
| Desert Sand | 5 |
| Black | 6 |
| Brown | 7 |
| Brushed Aluminium (Inner Surround Only) | 8 |
| Gold (Inner Surround Only) | 9 |




## Everybody likes neo:

stylish, modern and cleverly constructed, neo has an understated presence that people are drawn to. The attraction is a result of unwavering efforts to make neo something quite exceptional.

# Wired C-Bus Network Diagram

## System Units

Network Bridge
**5500NB**

Power Supply
**5500PS**

PC Interface
**5500PC**
→ **RS232**

Network Inteface
**5500CN**
→ **TCP/IP**

C-Bus Cable
**5005C305B**

## Input Units

Wireless Gateway
**5800WCGA**

C-Bus ULTI Key Input
**E5084NL**

C-Bus ULTI Key Input with DLT
**E5084DL**

C-Bus NEO Key Input
**E5058NL**

C-Bus NEO Key Input with DLT
**E5084DL**

Reflections Key Input
**R5068NL**

E2000 Series Key Input
**E5034NL**

Auxiliary Input
**L5504AUX**

General Input
**E5504GI**

90˚ Indoor Motion Sensor
**E5751L**

360˚ Indoor Motion Sensor
**5753L**

360˚ Multi Sensor
**5753PEIRL**

Telephone Interface
**5100TAU**

***PSTN***

Outdoor Motion Sensor
**5750WP**

Scene Master
**5035NIRSL**

*Remote Control*

Light Level Sensor
**E5031PE**

Temperature Sensor
**E5031TS**

Scene Controller
**E5034NS**

Colour LCD Touch Screen
**5080CTC**

Bus Coupler
**5104BCL**

Infrared Receiver
**E5034NL**

Clock Module
**E5031V2T7**

# Wired C-Bus Network Diagram

## Software

C-Bus Toolkit Software
**5000S/3**

C-Gate Server Application
**5000CG**

Schedule Plus
**5000SP5/3**

HomeGate
**5000HG5/3**

## Interfaces

- **MinderPRO Automation Controller**
- **CentralAXS Access Control**
- **Crestron Controller**
- **Serial Interface**
- **TCP/IP Interface**
- **AMX Controller**
- **ModBus Interface**

## Output Units

Single & Dual Channel Relay
**5101R**

4, 8, 12 Channel Relay
**L5512RVF**

4 Channel Change Over Relay
**L5504RVFC**

4 Channel Relay Driver
**5504RDP**

2, 8 Channel Dimmers
**L5504D2A**

10A, 12A, 16A & 20A
12 Channel High
Powered Dimmers
**L5512D10B2**

1, 2, 4 Channel
Professional Dimmers
**L5104D5**

2 Channel
DALI Output
**5502DAL**

8 Channel
DSI Output
**L5508DSI**

4 Channel
Analogue Output
**L5504AMP**

Infrared Output
**5034NIRT**

## Multi Room Audio

Audio Matrix Switcher
**5560884**

Audio Amplifier
**560125D**

Audio Amplifier
**560110R**

Audio Speakers, Circular
**5600ICP**

Audio Speakers, Square
**5600IWP**

# Wireless ULTI Family Relay Output
## British Standard

The Clipsal ULTI Family Wireless Switches are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network.

The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The wireless switches support toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The ULTI switches feature a glass fascia, with tactile push buttons. The ULTI switches are available in a range of colours such as white, cream, black and mid-brown. The ULTI switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

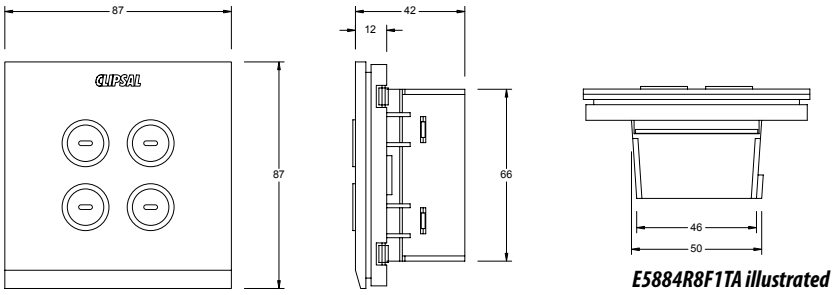
***E5884R8F1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **198 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W** |
| Maximum Load (Total) | **8A** |
| Load Rating (Total) | **8A: Incandescent/Halogen/Iron Core and Electronic Transformers<br>4A: Fluorescent (requires PFC to be fitted)<br>2A: Fan motors** |
| Off State Leakage Current | **10mA - Channel 1, 0mA - Channel 2** |
| Centre Frequency | **433.92MHz/315 MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **60.3mm** |
| Dimensions | **87mm(W) x 87mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **White, Cream, Black, Mid-Brown** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 6 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***E5884R8F1TA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **E5882R8F1AA** | Key Input 2 Gang, 1 Channel Relay, 1 x 8A |
| **E5884R8F1AA** | Key Input 4 Gang, 1 Channel Relay, 1 x 8A |
| **E5886R8F1AA** | Key Input 6 Gang, 1 Channel Relay, 1 x 8A |
| **E5884R4F2AA** | Key Input 4 Gang, 2 Channel Relay, 2 x 4A |
| **E5886R4F2AA** | Key Input 6 Gang, 2 Channel Relay, 2 x 4A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **Accessory** | |
| **5080LC-8** | Pre-labelled Caps |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **315MHz** | |
| **E5882R8F1EC** | Key Input 2 Gang, 1 Channel Relay, 1 x 8A |
| **E5884R8F1EC** | Key Input 4 Gang, 1 Channel Relay, 1 x 8A |
| **E5886R8F1EC** | Key Input 6 Gang, 1 Channel Relay, 1 x 8A |
| **E5884R4F2EC** | Key Input 4 Gang, 2 Channel Relay, 2 x 4A |
| **E5886R4F2EC** | Key Input 6 Gang, 2 Channel Relay, 2 x 4A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **Accessory** | |
| **5080LC-8** | Pre-labelled Caps |

# Wireless ULTI Family Relay Output
## Australian/US Standard

The Clipsal ULTI Family Wireless Switches are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

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***5884R8F1AA***

### TECHNICAL INFORMATION

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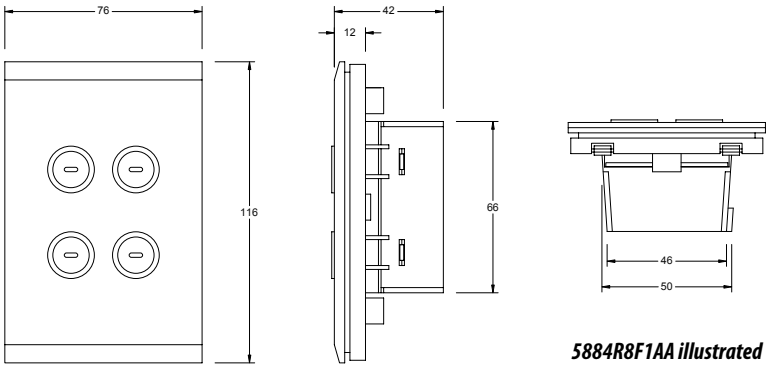
| Supply Voltage | **198 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W** |
| Maximum Load (Total) | **8A** |
| Load Rating (Total) | **8A: Incandescent/Halogen/Iron Core and Electronic Transformers<br>4A: Fluorescent (requires PFC to be fitted)<br>2A: Fan motors** |
| Off State Leakage Current | **10mA - Channel 1, 0mA - Channel 2** |
| Centre Frequency | **433.92MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **84mm** |
| Dimensions | **116mm(W) x 76mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **White, Cream, Black, Mid-Brown** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |




***5884R8F1AA illustrated***

### PRODUCT FEATURES

- Available as 2, 4 or 6 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 84mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5882R8F1AA** | Key Input 2 Gang, 1 Channel Relay, 1 x 8A |
| **5884R8F1AA** | Key Input 4 Gang, 1 Channel Relay, 1 x 8A |
| **5886R8F1AA** | Key Input 6 Gang, 1 Channel Relay, 1 x 8A |
| **5884R4F2AA** | Key Input 4 Gang, 2 Channel Relay, 2 x 4A |
| **5886R4F2AA** | Key Input 6 Gang, 2 Channel Relay, 2 x 4A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Accessories** | |
| **5080SD** | Spacers to Suit ULTI Australian/US Standard Switches |
| **5080LC-8** | Pre-labelled Caps |

# Wireless ULTI Family Leading Edge Dimmers
## British Standard

The Clipsal ULTI Family Wireless Leading Edge Dimmers are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network. The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The leading edge dimmers are compatible with incandescent, iron core, inductive input electronic transformers and fan motor loads.The wireless switches support dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The ULTI switches feature a glass fascia, with tactile push buttons. The ULTI switches are available in a range of colours such as white, cream, black and mid-brown. The ULTI switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

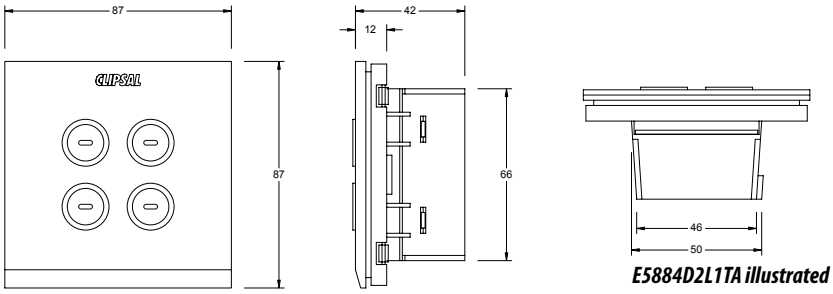
***E5884D2L1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **198 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W lamp or 0.25A fan motor** |
| Maximum Load (Total) | **500W, 2A (single channel unit) 250W, 1A (two channel unit)** |
| Load Rating (Total) | **2A** |
| Off State Leakage Current | **12mA - Channel 1, 5mA - Channel 2** |
| Centre Frequency | **433.92MHz/315MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **60.3mm** |
| Dimensions | **87mm(W) x 87mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **White, Cream, Black, Mid-Brown** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 6 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***E5884D2L1TA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **E5882D2L1AA** | Key Input 2 Gang, 1 Channel Relay, 1 x 8A |
| **E5884D2L1AA** | Key Input 4 Gang, 1 Channel Relay, 1 x 8A |
| **E5886D2L1AA** | Key Input 6 Gang, 1 Channel Relay, 1 x 8A |
| **E5884D1L2AA** | Key Input 4 Gang, 2 Channel Relay, 2 x 4A |
| **E5886D1L2AA** | Key Input 6 Gang, 2 Channel Relay, 2 x 4A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **Accessory** | |
| **5080LC-8** | Pre-labelled Caps |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **315MHz** | |
| **E5882D2L1EC** | Key Input 2 Gang, 1 Channel Relay, 1 x 8A |
| **E5884D2L1EC** | Key Input 4 Gang, 1 Channel Relay, 1 x 8A |
| **E5886D2L1EC** | Key Input 6 Gang, 1 Channel Relay, 1 x 8A |
| **E5884D1L2EC** | Key Input 4 Gang, 2 Channel Relay, 2 x 4A |
| **E5886D1L2EC** | Key Input 6 Gang, 2 Channel Relay, 2 x 4A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **Accessory** | |
| **5080LC-8** | Pre-labelled Caps |

# Wireless ULTI Family Leading Edge Dimmers
## Australian/US Standard

The Clipsal ULTI Family Wireless Leading Edge Dimmers are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network. The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The leading edge dimmers are compatible with incandescent, iron core transformers, inductive input electronic transformers and fan motor loads. The wireless switches support dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The ULTI switches feature a glass fascia, with tactile push buttons. The ULTI switches are available in a range of colours such as white, cream, black and mid-brown. The ULTI switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

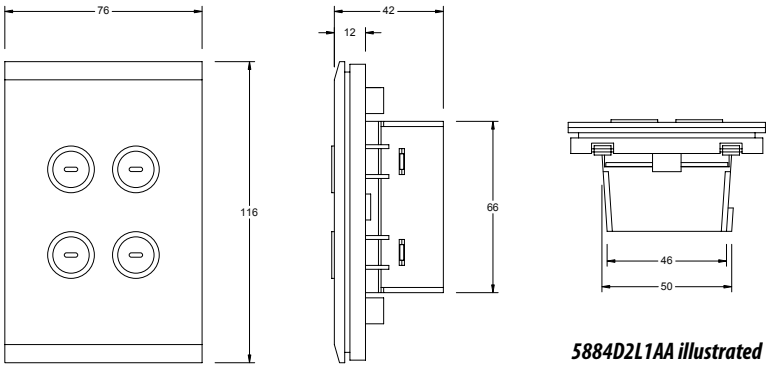
***5884D2L1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **216 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W lamp or 0.25A fan motor** |
| Maximum Load | **(Total) 500W, 2A (single channel unit)<br>250W, 1A (two channel unit)** |
| Load Rating | **(Total) 2A** |
| Off State Leakage Current | **10mA - Channel 1, 5mA - Channel 2** |
| Centre Frequency | **433.92MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **84mm** |
| Dimensions | **116mm(W) x 76mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **White, Cream, Black, Mid-Brown** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 6 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 84mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***5884D2L1AA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5882D2L1AA** | Key Input 2 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **5884D2L1AA** | Key Input 4 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **5886D2L1AA** | Key Input 6 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **5884D1L2AA** | Key Input 4 Gang, 2 Channel Leading Edge Dimmer, 2 x 1A |
| **5886D1L2AA** | Key Input 6 Gang, 2 Channel Leading Edge Dimmer, 2 x 1A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Accessories** | |
| **5080SD** | Spacers to Suit ULTI Australian/US Standard Switches |
| **5080LC-8** | Pre-labelled Caps |

# Wireless ULTI Family Trailing Edge Dimmers
## British Standard

The Clipsal ULTI Family Wireless Trailing Edge are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being of a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network. The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The trailing edge dimmers are compatible with incandescent and capacitive input electronic transformers loads. The wireless switches support dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The ULTI switches feature a glass fascia, with tactile push buttons. The ULTI switches are available in a range of colours such as white, cream, black and mid-brown. The ULTI switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

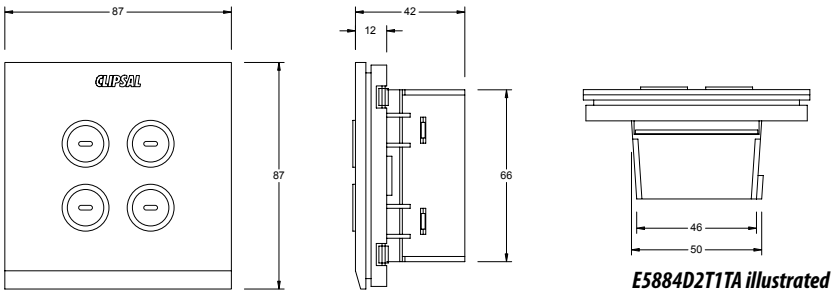
***E5884D2T1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **216 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W lamp** |
| Maximum Load (Total) | **500W, 2A (single channel unit) 250W, 1A (two channel unit)** |
| Load Rating (Total) | **2A** |
| Off State Leakage Current | **15mA - Channel 1, 10mA - Channel 2** |
| Centre Frequency | **433.92MHz/315MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **60.3mm** |
| Dimensions | **87mm(W) x 87mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **White, Cream , Black, Mid-Brown** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 6 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***E5884D2T1TA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **E5882D2T1AA** | Key Input 2 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5884D2T1AA** | Key Input 4 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5886D2T1AA** | Key Input 6 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5884D1T2AA** | Key Input 4 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |
| **E5886D1T2AA** | Key Input 6 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **Accessory** | |
| **5080LC-8** | Pre-labelled Caps |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **315MHz** | |
| **E5882D2T1EC** | Key Input 2 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5884D2T1EC** | Key Input 4 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5886D2T1EC** | Key Input 6 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5884D1T2EC** | Key Input 4 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |
| **E5886D1T2EC** | Key Input 6 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **Accessory** | |
| **5080LC-8** | Pre-labelled Caps |

# Wireless ULTI Family Trailing Edge Dimmers
## Australian/US Standard

The Clipsal ULTI Family Wireless Trailing Edge Dimmers are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being of a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network. The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The trailing edge dimmers are compatible with incandescent and capacitive input electronic transformers loads. The wireless switches support dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The ULTI switches feature a glass fascia, with tactile push buttons. The ULTI switches are available in a range of colours such as white, cream, black and mid-brown. The ULTI switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

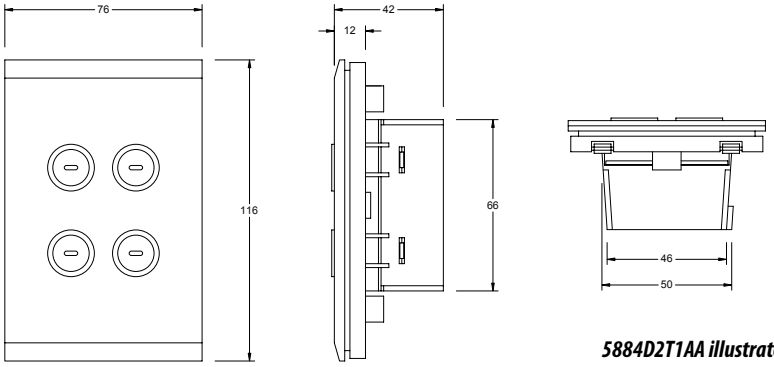
***5884D2T1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **216 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W lamp** |
| Maximum Load (Total) | **500W, 2A (single channel unit)**<br>**250W, 1A (two channel unit)** |
| Load Rating (Total) | **2A** |
| Off State Leakage Current | **15mA - Channel 1, 10mA - Channel 2** |
| Centre Frequency | **433.92MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **84mm** |
| Dimensions | **116mm(W) x 76mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **White, Cream, Black, Mid-Brown** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 6 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 84mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***5884D2T1AA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5882D2T1AA** | Key Input 2 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **5884D2T1AA** | Key Input 4 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **5886D2T1AA** | Key Input 6 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **5884D1T2AA** | Key Input 4 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |
| **5886D1T2AA** | Key Input 6 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Accessories** | |
| **5080SD** | Spacers to Suit ULTI Australian/US Standard Switches |
| **5080LC-8** | Pre-labelled Caps |

# Wireless NEO Family Relay Ouput
## British Standard

The Clipsal NEO Family Wireless Switches are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being of a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network. The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus devices within the same network.

The wireless switches support toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The NEO switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

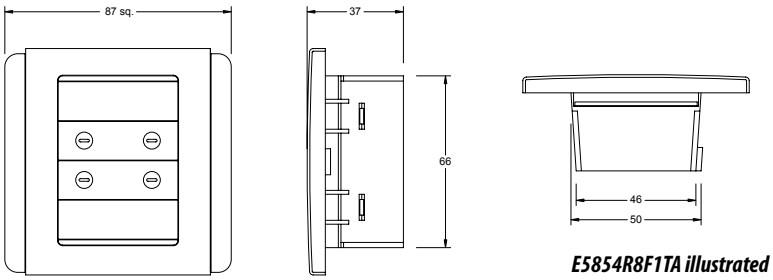
***E5858R8F1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **198 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W** |
| Maximum Load (Total) | **8A** |
| Load Rating (Total) | **8A: Incandescent/Halogen/Iron Core and Electronic Transformers<br>4A: Fluorescent (requires PFC to be fitted)<br>2A: Fan motors** |
| Off State Leakage Current | **10mA - Channel 1, 0mA - Channel 2** |
| Centre Frequency | **433.92MHz/315MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **60.3mm** |
| Dimensions | **87mm(W) x 87mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **WE, SG, DS, CM, BR, BK and GB** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 8 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two-way wireless protocol.
- Features, 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***E5854R8F1TA illustrated***

| CATALOGUE NUMBER | DESCRIPTION | CATALOGUE NUMBER | DESCRIPTION |
|---|---|---|---|
| **434MHz** | | **315MHz** | |
| **E5852R8F1AA** | Key Input 2 Gang, 1 Channel Relay, 1 x 8A | **E5852R8F1EC** | Key Input 2 Gang, 1 Channel Relay, 1 x 8A |
| **E5854R8F1AA** | Key Input 4 Gang, 1 Channel Relay, 1 x 8A | **E5854R8F1EC** | Key Input 4 Gang, 1 Channel Relay, 1 x 8A |
| **E5858R8F1AA** | Key Input 8 Gang, 1 Channel Relay, 1 x 8A | **E5858R8F1EC** | Key Input 8 Gang, 1 Channel Relay, 1 x 8A |
| **E5854R4F2AA** | Key Input 4 Gang, 2 Channel Relay, 2 x 4A | **E5854R4F2EC** | Key Input 4 Gang, 2 Channel Relay, 2 x 4A |
| **E5858R4F2AA** | Key Input 8 Gang, 2 Channel Relay, 2 x 4A | **E5858R4F2EC** | Key Input 8 Gang, 2 Channel Relay, 2 x 4A |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey

# Wireless NEO Family Relay Ouput
## Australian/US Standard

The Clipsal NEO Family Wireless Switches are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being of a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network. The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The wireless switches support toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The NEO switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

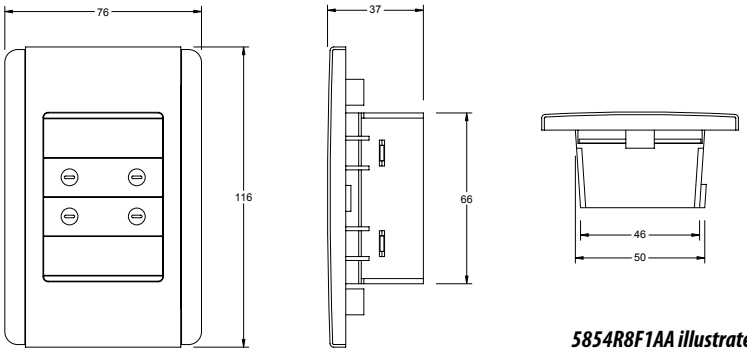
***5858R8F1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **198 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W** |
| Maximum Load (Total) | **8A** |
| Load Rating (Total) | **8A: Incandescent/Halogen/Iron Core and Electronic Transformers<br>4A: Fluorescent (requires PFC to be fitted)<br>2A: Fan motors** |
| Off State Leakage Current | **10mA - Channel 1, 0mA - Channel 2** |
| Centre Frequency | **433.92MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **84mm** |
| Dimensions | **116mm(W) x 76mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **WE, SG, DS, CM, BR, BK and GB** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 8 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two-way wireless protocol.
- Features, 84mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***5854R8F1AA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5852R8F1AA** | Key Input 2 Gang, 1 Channel Relay, 1 x 8A |
| **5854R8F1AA** | Key Input 4 Gang, 1 Channel Relay, 1 x 8A |
| **5858R8F1AA** | Key Input 8 Gang, 1 Channel Relay, 1 x 8A |
| **5854R4F2AA** | Key Input 4 Gang, 2 Channel Relay, 2 x 4A |
| **5858R4F2AA** | Key Input 8 Gang, 2 Channel Relay, 2 x 4A |
| **Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey | |
| **Accessory** | |
| **5050SD** | Spacers to Suit NEO Australian/US Standard Switches |

# Wireless NEO Family Leading Edge Dimmers
## British Standard

The Clipsal NEO Family Wireless Leading Edge Dimmers are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being of a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network. The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The leading edge dimmers are compatible with incandescent, iron core transformers, inductive input electronic transformers and fan motor loads. The wireless switches support dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The NEO switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

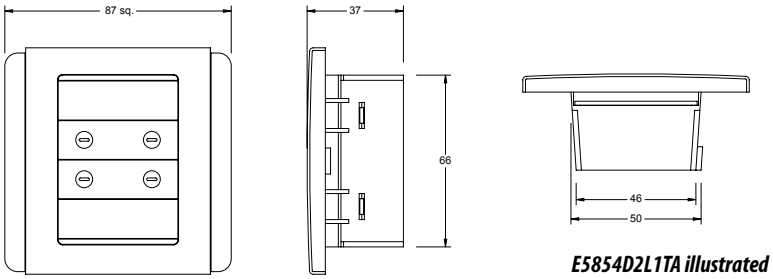
***E5858D2L1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **216 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W lamp or 0.25A fan motor** |
| Maximum Load (Total) | **500W, 2A (single channel unit)<br>250W, 1A (two channel unit)** |
| Load Rating (Total) | **2A** |
| Off State Leakage Current | **12mA - Channel 1, 5mA - Channel 2** |
| Centre Frequency | **433.92MHz/315MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **60.3mm** |
| Dimensions | **87mm(W) x 87mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **WE, SG, DS, CM, BR, BK and GB** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 8 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***E5854D2L1TA illustrated***

| CATALOGUE NUMBER | DESCRIPTION | CATALOGUE NUMBER | DESCRIPTION |
|---|---|---|---|
| **434MHz** | | **315MHz** | |
| **E5852D2L1AA** | Key Input 2 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A | **E5852D2L1EC** | Key Input 2 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **E5854D2L1AA** | Key Input 4 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A | **E5854D2L1EC** | Key Input 4 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **E5858D2L1AA** | Key Input 8 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A | **E5858D2L1EC** | Key Input 8 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **E5854D1L2AA** | Key Input 4 Gang, 2 Channel Leading Edge Dimmer, 2 x 1A | **E5854D1L2EC** | Key Input 4 Gang, 2 Channel Leading Edge Dimmer, 2 x 1A |
| **E5858D1L2AA** | Key Input 8 Gang, 2 Channel Leading Edge Dimmer, 2 x 1A | **E5858D1L2EC** | Key Input 8 Gang, 2 Channel Leading Edge Dimmer, 2 x 1A |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey

# Wireless NEO Family Leading Edge Dimmers
## Australian/US Standard

The Clipsal NEO Family Wireless Leading Edge Dimmers are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being of a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network. The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The leading edge dimmers are compatible with incandescent, iron core transformers, inductive input electronic transformers and fan motor loads. The wireless switches support dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The NEO switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

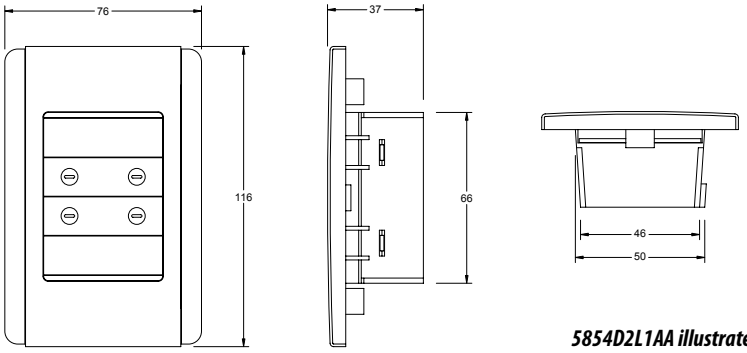
***5858D2L1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **216 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W lamp or 0.25A fan motor** |
| Maximum Load (Total) | **500W, 2A (single channel unit)<br>250W, 1A (two channel unit)** |
| Load Rating (Total) | **2A** |
| Off State Leakage Current | **12mA - Channel 1, 5mA - Channel 2** |
| Centre Frequency | **433.92MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **84mm** |
| Dimensions | **116mm(W) x 76mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **WE, SG, DS, CM, BR, BK and GB** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 8 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 84mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***5854D2L1AA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5852D2L1AA** | Key Input 2 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **5854D2L1AA** | Key Input 4 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **5858D2L1AA** | Key Input 8 Gang, 1 Channel Leading Edge Dimmer, 1 x 2A |
| **5854D1L2AA** | Key Input 4 Gang, 2 Channel Leading Edge Dimmer, 2 x 1A |
| **5858D1L2AA** | Key Input 8 Gang, 2 Channel Leading Edge Dimmer, 2 x 1A |
| **Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey | |
| **Accessory** | |
| **5050SD** | Spacers to Suit NEO Australian/US Standard Switches |

# Wireless NEO Family Trailing Edge Dimmers
## British Standard

The Clipsal NEO Family Wireless Trailing Edge Dimmers are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being of a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network.

The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The trailing edge dimmers are compatible with incandescent and capacitive input electronic transformers.

The wireless switches support dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The NEO switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

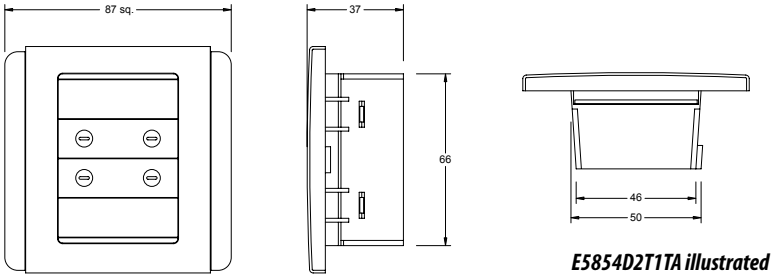
***E5858D2T1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **216 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W lamp** |
| Maximum Load (Total) | **500W, 2A (single channel unit)**<br>**250W, 1A (two channel unit)** |
| Load Rating (Total) | **2A** |
| Off State Leakage Current | **15mA - Channel 1, 10mA - Channel 2** |
| Centre Frequency | **433.92MHz/315MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Devices Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **60.3mm** |
| Dimensions | **87mm(W) x 87mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **WE, SG, DS, CM, BR, BK and GB** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 8 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***E5854D2T1TA illustrated***

| CATALOGUE NUMBER | DESCRIPTION | CATALOGUE NUMBER | DESCRIPTION |
|---|---|---|---|
| **434MHz** | | **315MHz** | |
| **E5852D2T1AA** | Key Input 2 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A | **E5852D2T1EC** | Key Input 2 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5854D2T1AA** | Key Input 4 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A | **E5854D2T1EC** | Key Input 4 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5858D2T1AA** | Key Input 8 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A | **E5858D2T1EC** | Key Input 8 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **E5854D1T2AA** | Key Input 4 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A | **E5854D1T2EC** | Key Input 4 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |
| **E5858D1T2AA** | Key Input 8 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A | **E5858D1T2EC** | Key Input 8 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey

# Wireless NEO Family Trailing Edge Dimmers
## Australian/US Standard

The Clipsal NEO Family Wireless Trailing Edge Dimmers are designed for new and retrofit construction programs and use wireless (RF) technology to communicate with other C-Bus devices. The wireless switches are powered from the mains supply and being of a two-wire design, they require no neutral connection. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network.

The wireless switches feature push buttons, which are used to control the load directly connected to that device as well as free locate push buttons, which may be programmed to control loads connected to other C-Bus input devices within the same network.

The trailing edge dimmers are compatible with incandescent and capacitive input electronic transformers.

The wireless switches support dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode or the Toolkit Software. Each unit features a unique identification code, so there is no chance of interference between devices located in separate networks.

The NEO switches are designed to use standard Clipsal mounting accessories, such as brackets and wall boxes, for ease of installation.

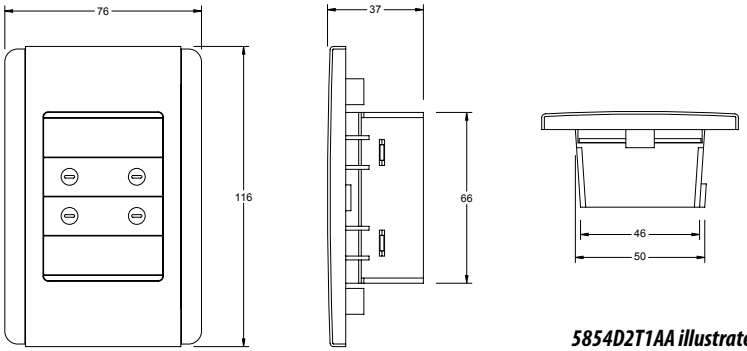
***5858D2T1AA***

### TECHNICAL INFORMATION

| | |
|---|---|
| Supply Voltage | **216 - 264VAC** |
| Supply Frequency | **50Hz** |
| Minimum Load/Channel | **25W lamp** |
| Maximum Load (Total) | **500W, 2A (single channel unit)<br>250W, 1A (two channel unit)** |
| Load Rating (Total) | **2A** |
| Off State Leakage Current | **15mA - Channel 1, 10mA - Channel 2** |
| Centre Frequency | **433.92MHz** |
| Transmitting Power | **1mW** |
| Maximum Range | **50m (free air)** |
| Device Per Network | **30 (maximum)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Mounting Centres | **84mm** |
| Dimensions | **116mm(W) x 76mm(H) x 41mm(D)** |
| Status Indicators | **Orange** |
| Warm Up Time | **5 seconds** |
| Standard Colours | **WE, SG, DS, CM, BR, BK and GB** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available as 2, 4 or 8 key configuration.
- Replaces existing mechanical wall switches without the need of additional wiring.
- Two-wire connection requires no neutral wire.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains power.
- Communicates directly with other wireless devices on the same network.
- Wired and wireless devices can communicate via the Gateway.
- 128-bit encrypted and two way wireless protocol.
- Features, 84mm mounting centres, compatible with Clipsal mounting boxes.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***5854D2T1AA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5852D2T1AA** | Key Input 2 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **5854D2T1AA** | Key Input 4 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **5856D2T1AA** | Key Input 6 Gang, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **5854D1T2AA** | Key Input 4 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |
| **5856D1T2AA** | Key Input 6 Gang, 2 Channel Trailing Edge Dimmer, 2 x 1A |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Accessory** | |
| **5050SD** | Spacers to Suit NEO Australian/US Standard Switches |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey

# Wireless Plug Adaptors
## British Standard

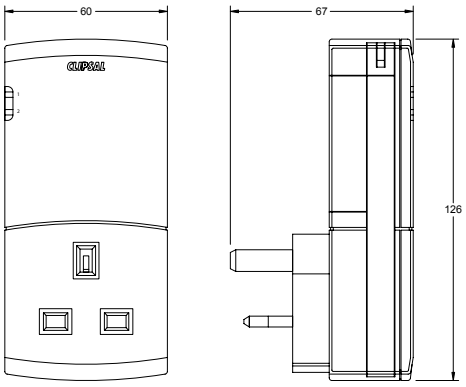
C-Bus Wireless Plug Adaptors allow devices normally plugged into 240VAC General Purpose Outlets (for example, lounge or bedside lamps) to be controlled using C-Bus Wireless technology. C-Bus Wireless Plug Adaptors are able to communicate with other C-Bus Wireless devices (such as Wireless Key Input Units) using Radio Frequency wireless messaging and form a C-Bus Wireless Network.

C-Bus Wireless Plug Adaptors plug into existing Power Outlets, and the device to be controlled via C-Bus Wireless then piggybacks into the Plug Adaptor. No additions or alterations to existing wiring are required. C-Bus Wireless Plug Adaptors are available in Leading Edge Dimming and Relay output version.

*5812R13F1EA*

### TECHNICAL INFORMATION

| Catalogue Numbers | 5812D3L1EA | 5812D3L1EC | 5812R13F1EA | 5812R13F1EC |
|---|---|---|---|---|
| Supply Voltage | 240VAC @ 50Hz | | | |
| Maximum Load (Total) | 750W, 3A | | 13A | |
| Centre Frequency | 434MHz | 315MHz | 434MHz | 315MHz |
| Resistive | 3A | | 13A | |
| Fluorescent | - | | 13AX | |
| Incandescent/Halogen | 3A | | 12.5A | |
| Iron Core LV Lighting | 3A | | 2860VA | |
| Electronic LV Lighting | - | | 2860VA | |
| Fan Motors | - | | 2A | |
| Dimensions | 126mm(L) x 60mm(W) x 67mm(H) | | | |
| Operating Temperature Range | 0˚C to 40˚C | | | |
| Operating Humidity Range | 10 - 95% RH | | | |




*5812R13F1EA illustrated*

### PRODUCT FEATURES

- Plugs into a standard British General Purpose Electrical Outlet.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Communicates directly with other wireless devices on the same network.
- 128-bit encrypted and two-way wireless protocol.
- Separate Leading Edge and Relay Units available.
- CE (European Community) compliant - applicable only for 5812R13F1EC models only.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **5812D3L1EA** | Plug Adaptor, 1 Channel Leading Edge Dimmer, 1 x 3A |
| **5812R13F1EA** | Plug Adaptor, 1 Channel Relay, 1 x 13A |
| **315MHz** | |
| **5812D3L1EC** | Plug Adaptor, 1 Channel Leading Edge Dimmer, 1 x 3A |
| **5812R13F1EC** | Plug Adaptor, 1 Channel Relay, 1 x 13A |

# Wireless Plug Adaptors
## Australian Standard

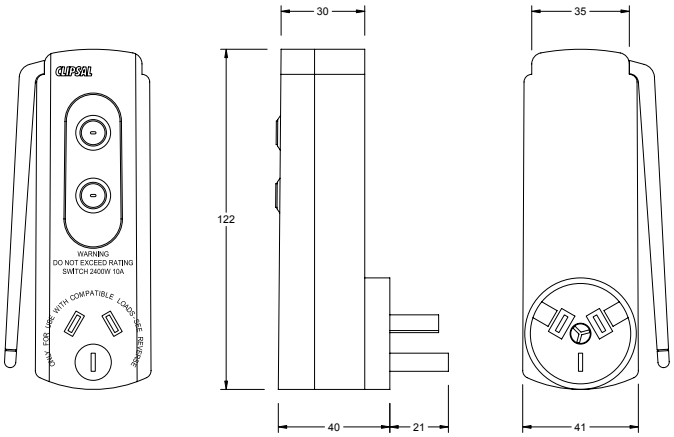
C-Bus Wireless Plug Adaptors allow devices normally plugged into 240VAC General Purpose Outlets (for example, lounge or bedside lamps) to be controlled using C-Bus Wireless technology. C-Bus Wireless Plug Adaptors are able to communicate with other C-Bus Wireless devices (such as Wireless Key Input Units) using Radio Frequency wireless messaging and form a C-Bus Wireless Network.

C-Bus Wireless Plug Adaptors plug into existing Power Outlets, and the device to be controlled via C-Bus Wireless then piggybacks into the Plug Adaptor. No additions or alterations to existing wiring are required. C-Bus Wireless Plug Adaptors are available in Leading Edge Dimming and Trailing Edge Dimming Units, as well as a Relay output version.

***5812D3L1AA***

### TECHNICAL INFORMATION

| Catalogue Numbers | 5812D3L1AA | 5812D2T1AA | 5812R10F1AA |
|---|---|---|---|
| Supply Voltage | 240VAC @ 50Hz | | |
| Maximum Load (Total) | 750W, 3A | 500W, 2A | 2400W, 10A |
| Centre Frequency | 434MHz | | |
| Fluorescent | - | - | 4A |
| Incandescent/Halogen | 3A | 2A | 10A |
| Iron Core LV Lighting | 3A | - | 10A |
| Electronic LV Lighting | - | 2A | 10A |
| Fan Motors | - | - | 2A |
| Dimensions | 123mm(L) x 50mm(W) x 64mm(H) | | |
| Operating Temperature Range | 0˚C to 40˚C | | |
| Operating Humidity Range | 10 - 95% RH | | |




***5812R10F1AA illustrated***

### PRODUCT FEATURES

- Plugs into a standard Australian General Purpose Electrical Outlet.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Communicates directly with other wireless devices on the same network.
- 128-bit encrypted and two-way wireless protocol.
- Separate Leading Edge, Trailing Edge and Relay Units available.
- RCM (Australia/New Zealand) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5812D3L1AA** | Plug Adaptor, 1 Channel Leading Edge Dimmer, 1 x 3A |
| **5812D2T1AA** | Plug Adaptor, 1 Channel Trailing Edge Dimmer, 1 x 2A |
| **5812R10F1AA** | Plug Adaptor, 1 Channel Relay, 1 x 10A |

# Wireless Remote Controls

The Wireless Remote Control has been designed to operate with all C-Bus radio frequency (RF) devices such as wall plates switches and dimmers and plug adaptors. The wireless remote control utilises RF communication, and unlike infrared remote controllers, there is no need for direct line of sight between the remote control and the unit being controlled.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network.

The remote control may be programmed to control up to 10 separate buttons located on wall plate switches, dimmers and plug adaptors. The remote control can also be programmed to operate devices in different networks. In addition a single button located on a wall switch, dimmer or plug adaptor may be related and control from two wireless remote control units.

The remote control is organized in two banks of five buttons - master off, raise and lower scene buttons - and LCD display used to indicate the scene or device under control.

The wireless remote control supports dimmer, toggle, on, off, timer and scene functions and may be programmed using learn mode.

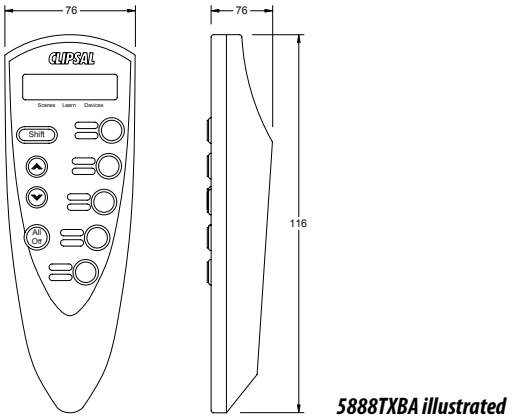
***5888TXBA***

## TECHNICAL INFORMATION

| | |
|---|---|
| Batteries | **4 x AAA Alkaline batteries** |
| Centre Frequency | **433.92MHz/315MHz** |
| Transmitting Power | **10mW** |
| No. of Device Buttons/Remote Unit | **70m (open air) 20 - 25m (built-up area)** |
| Backlighting | **Blue LED** |
| Display | **LCD** |
| Dimension | **149mm(L) x 52mm(W) x 26mm(D)** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

## PRODUCT FEATURES

- Walk around hand held remote control.
- Two banks of five buttons (master off, raise and lower scene buttons).
- LCD display window.
- Button label option.
- Transmit signal indicator.
- Programming learn switch.
- RCM (Australia/New Zealand) and CE (European Community) compliant.




***5888TXBA illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **5888TXBA** | Remote Control, 8 Button |
| **315MHz** | |
| **5888TXBC** | Remote Control, 8 Button |

# Wireless Gateway

The Wireless Gateway is used to provide a seamless communications link between a wireless C-Bus network to a wired C-Bus network, providing interoperability of devices across these different transmission media.

With the Wireless Gateway, it is possible to control and monitor wireless devices from a wired C-Bus network device or application software such as Schedule Plus or HomeGate.

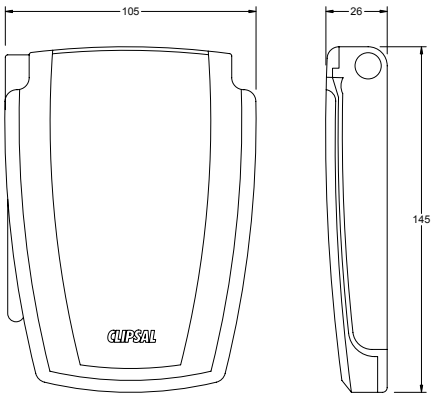
The Wireless Gateway is powered from the wired C-Bus network and a number of the Wireless Gateways may be connected to a wired C-Bus network if required.

The wireless protocol is based on the same protocol as wired C-Bus, for robustness and reliability and features 128-bit encrypted data for a highly secure network.

***5800WCGA***

## TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Power Supply | **15 - 36VDC @ 32mA** |
| Centre Frequency | **433.92MHz/315MHz** |
| Transmitting Power | **1mW** |
| Operating Distance | **50m (open air) 15 - 20m (built-up area)** |
| Dimensions | **105mm(W) x 149mm(H) x 26mm(D)** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |




***5800WCGA illustrated***

## PRODUCT FEATURES

- Facilitates a seamless integration between wired and wireless C-Bus networks.
- Powered from a wired C-Bus network only, does not require an external plug pack.
- Permits learn enabled operations from wired to wireless networks.
- Supports routing of messages into and through wired and wireless networks.
- Commands from one network (button presses) can be routed through to the other network.
- RCM (Australia/New Zealand) and CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **5800WCGA** | Gateway, Wired to Wireless C-Bus |
| | |
| **315MHz** | |
| **5800WCGC** | Gateway, Wired to Wireless C-Bus |

# C-Bus ULTI Family Key Input Units
## with Dynamic Labelling Technology, British Standard

The Clipsal ULTI Family Dynamic Labelling Technology (DLT) switches are learn enabled, surface switches designed to control lighting and other electrical services connected to a C-Bus network. Dynamic Labelling Technology allows the function of the key to be programmed and displayed onto a LCD display next to the switch button.

The display found on the DLT switch supports multi language text and user defined bitmaps, such as sliders and bar graphs. The LCD display incorporates back lighting that can be enabled for night operation. In addition, the DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

The DLT Switches feature a glass fascia and are available in a range of colour backgrounds, including white, cream, black and mid-brown.

Key input units communicate with all other units and obtain power via a single twisted pair of connections to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

***E5084DL, GF***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15 - 36V DC @ 22mA** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Button Indicator | **Programmable, Blue** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Number of Scenes | **8** |
| Standard Colours | **White, Cream, Black and Mid-Brown** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available with 4 buttons (British standard).
- Features blue light indicator with night light function.
- Supports text labels and user defined bitmaps.
- Ignore first press option.
- Fallback to pages 1 and 2 option.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Compatible with mounting accessories found in United Kingdom, China, Malaysia, Singapore, Middle East and other regions.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5084DL** | Key Input, 4 Gang, LCD |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **5084DF** | Fascia, Glass, 4 Gang for DLT Switch |
| **Colour Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |

# C-Bus ULTI Family Key Input Units
## with Dynamic Labelling Technology, Australian/US Standard

The Clipsal ULTI Family Dynamic Labelling Technology (DLT) switches are learn enabled, surface switches designed to control lighting and other electrical services connected to a C-Bus network. Dynamic Labelling Technology allows the function of the key to be programmed and displayed onto a LCD display next to the switch button.

The display found on the DLT switch supports multi language text and user defined bitmaps, such as sliders and bar graphs. The LCD display incorporates back lighting that can be enabled for night operation. In addition, the DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

The DLT Switches feature a glass fascia and are available in a range of colour backgrounds, including white, cream, black and mid-brown.

Key input units communicate with all other units and obtain power via a single twisted pair of connections to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

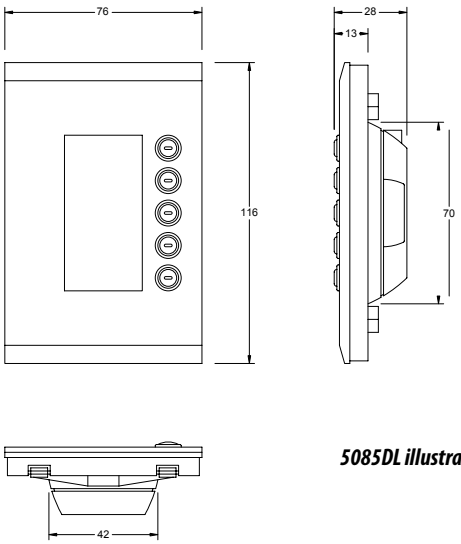
***5085DL, GF***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15 - 36V DC @ 22mA** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Button Indicator | **Programmable, Blue** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Number of Scenes | **8** |
| Standard Colours | **White, Cream, Black and Mid-Brown** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available with 5 buttons (Australian/US standard).
- Features blue light indicator with night light function.
- Supports text labels and user defined bitmaps.
- Ignore first press option.
- Fallback to page 1 option.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Compatible with mounting accessories found in United Kingdom, China, Malaysia, Singapore, Middle East and other regions.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***5085DL illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5085DL** | Key Input, 5 Gang, LCD |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **5085DF** | Fascia, Glass, 5 Gang for DLT Switch |
| **Colour Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |

# C-Bus NEO Family Key Input Units
## with Dynamic Labelling Technology, British Standard

The Clipsal NEO Family Dynamic Labelling Technology (DLT) switches are learn enabled, surface switches designed to control lighting and other electrical services connected to a C-Bus network. Dynamic Labelling Technology allows the function of the key to be programmed and displayed onto a LCD display next to the switch button.

The display found on the DLT switch supports multi language text and user defined bitmaps, such as sliders and bar graphs. The LCD display incorporates back lighting that can be enabled for night operation. In addition the DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair of connections to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

***E5054DL, GB***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15 - 36VDC @ 22mA** |
| Maximum Number of Units on a Single C- Bus Network | **50** |
| Button Indicator | **Programmable, Blue** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Number of Scenes | **8** |
| Standard Colours | **GB (Battleship Grey)** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available with 4 buttons (British standard)
- Features blue light indicator with night light function.
- Supports text labels and user defined bitmaps.
- Ignore first press option.
- Fallback to pages 1 and 2 option.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Compatible with mounting accessories found in United Kingdom, China, Malaysia, Singapore, Middle East and other regions.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5054DL** | Key Input, 4 Gang, LCD |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey

# C-Bus NEO Family Key Input Units
## with Dynamic Labelling Technology, Australian/US Standard

The Clipsal NEO Family Dynamic Labelling Technology (DLT) switches are learn enabled, surface switches designed to control lighting and other electrical services connected to a C-Bus network. Dynamic Labelling Technology allows the function of the key to be programmed and displayed onto a LCD display next to the switch button.

The display found on the DLT switch supports multi language text and user defined bitmaps, such as sliders and bar graphs. The LCD display incorporates back lighting that can be enabled for night operation. In addition the DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair of connections to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

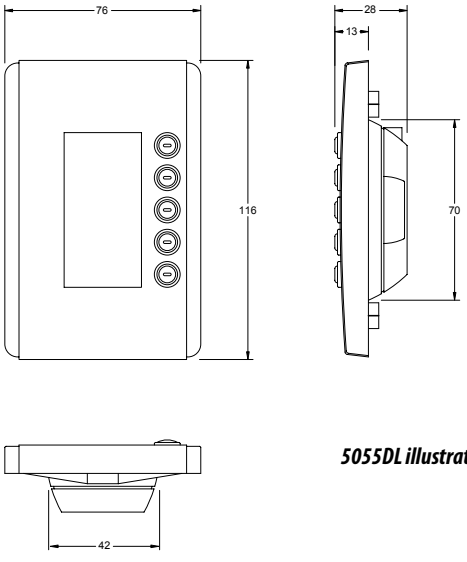
***5055DL, GB***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15 - 36VDC @ 22mA** |
| Maximum Number of Units on a Single C- Bus Network | **50** |
| Button Indicator | **Programmable, Blue** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Number of Scenes | **8** |
| Standard Colours | **GB (Battleship Grey)** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- Available with 5 buttons (Australian/US standard)
- Features blue light indicator with night light function.
- Supports text labels and user defined bitmaps.
- Ignore first press option.
- Fallback to pages 1 and 2 option.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Compatible with mounting accessories found in United Kingdom, China, Malaysia, Singapore, Middle East and other regions.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***5055DL illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5055DL** | Key Input, 5 Gang, LCD |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey

# C-Bus ULTI Family Key Input Units
## British Standard

The Clipsal ULTI Family C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Suitable for exclusive interiors, the ULTI features an impact resistant glass fascia with white, brown, black or cream backing. The round silver finish push buttons feature a dual coloured light indicator, providing a visual indication of the switch state.

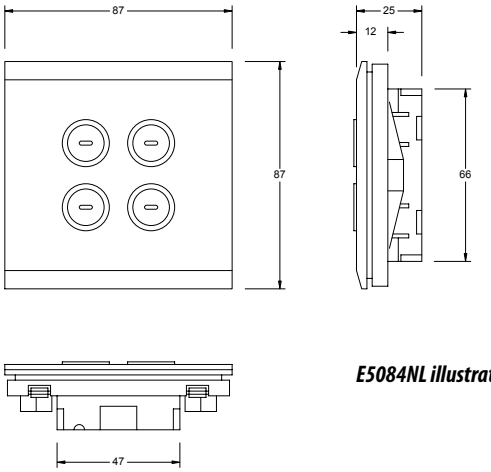
Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

***E5084NL, GF***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 22mA** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Status Indicator | **Programmable, Dual, Orange and Blue** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **60.3mm** |
| Standard Colours | **White, Cream, Black, Mid-Brown** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***E5084NL illustrated***

### PRODUCT FEATURES

- Available as 2, 4 or 6 key configuration.
- Features bi-colour light indicator with night light.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features, 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in United Kingdom, China, Malaysia, Singapore, Middle East and other regions.
- Available in glass finish with white, cream, black or mid-brown background.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5082NL** | Key Input 2 Gang |
| **E5084NL** | Key Input 4 Gang |
| **E5086NL** | Key Input 6 Gang |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **Accessory** | |
| **5080LC-8** | Pre-labelled Caps |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5082F** | Fascia, Glass, 2 Gang |
| **E5084F** | Fascia, Glass, 4 Gang |
| **E5086F** | Fascia, Glass, 6 Gang |
| **Colour Selection: (GF)** White, **(380)** Cream, **(680)** Black, **(780)** Mid-Brown | |
| **Accessory** | |
| **5080LC-8** | Pre-labelled Caps |

# C-Bus ULTI Family Key Input Units
## Australian/US Standard

The Clipsal ULTI Family C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Suitable for exclusive interiors, the ULTI features an impact resistant glass fascia with white, brown, black or cream backing. The round silver finish push buttons feature a dual coloured light indicator, providing a visual indication of the switch state.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

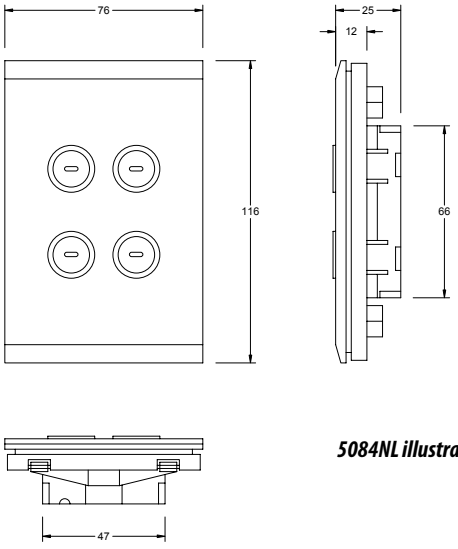
Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

***5084NL, GF***

***5086F, 380***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 22mA** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Status Indicator | **Programmable, Dual, Orange and Blue** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Standard Colours | **White, Cream, Black, Mid-Brown** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***5084NL illustrated***

### PRODUCT FEATURES

- Available as 2, 4 or 6 key configuration.
- Features bi-colour light indicator with night light.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features, 84mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in Australia, New Zealand, United States, Thailand, Taiwan, Korea and others.
- Available in glass finish with white, black, cream or mid-brown background.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5082NL** | Key Input 2 Gang |
| **5084NL** | Key Input 4 Gang |
| **5086NL** | Key Input 6 Gang |
| **Cover Selection: (GF)** White, **(380)** Cream, **(680)** Black,**(780)** Mid-Brown | |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5082F** | Fascia, Glass, 2 Gang |
| **5084F** | Fascia, Glass, 4 Gang |
| **5086F** | Fascia, Glass, 6 Gang |
| **Colour Selection: (GF)** White, **(380)** Cream, **(680)** Black,**(780)** Mid-Brown | |

# C-Bus NEO Family Key Input Units
## British Standard

The Clipsal NEO Family C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Suitable for exclusive interiors, the NEO features large, flat, tactile rocker action switches that have been designed to blend in with the fascia. The NEO switches feature a bi-colour light indicator that provides a visual indication of switch status.

The NEO switches feature a night light function, and incorporate an infrared receiver in the body of the unit, so the switch may be used with a remote control.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The NEO switches are available in a wide range of colours and finishes.

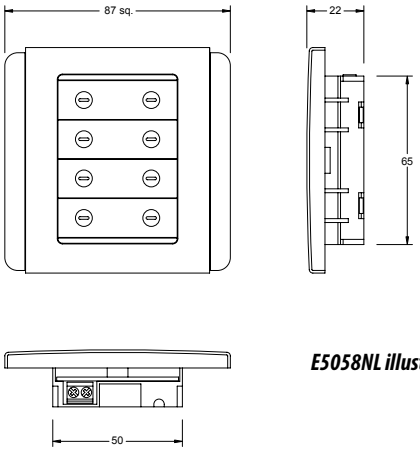
***E5058NL, GB***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 22mA** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Status Indicator | **Programmable, Dual, Orange and Blue** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **60.3mm** |
| Standard Colours | **WE, SG, DS, CM, BR, BK and GB** |
| Standard Colours (Inner Surround) | **BA and GD** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

### PRODUCT FEATURES

- Available as 2, 4 or 8 key configuration.
- Features bi-colour light indicator with night light function.
- Built in infrared receiver.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in United Kingdom, China, Malaysia, Singapore, Middle East and other regions.
- Compatible with 5038TX infrared remote control.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***E5058NL illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5052NL** | Key Input 2 Gang |
| **E5054NL** | Key Input 4 Gang |
| **E5058NL** | Key Input 8 Gang |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey

# C-Bus NEO Family Key Input Units
## Australian Standard

The Clipsal NEO Family C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Suitable for exclusive interiors, the NEO features large, flat, tactile rocker action switches that have been designed to blend in with the fascia. The NEO switches feature a bi-colour light indicator that provides a visual indication of switch status.

The NEO switches feature a night light function, and incorporate an infrared receiver in the body of the unit, so the switch may be used with a remote control.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

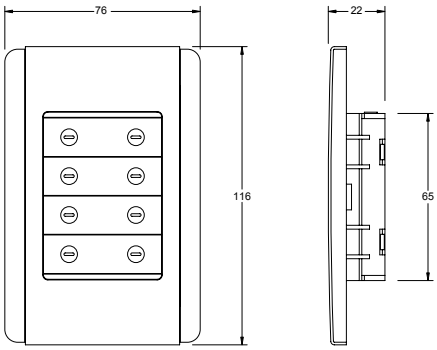
Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

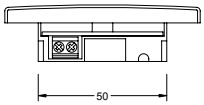
The NEO switches are available in a wide range of colours and finishes.

***5058NL, GB***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 22mA** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Status Indicator | **Programmable, Dual, Orange and Blue** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Standard Colours | **WE, SG, DS, CM, BR, BK and BG** |
| Standard Colours (Inner Surround) | **BA and GD** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***5058NL illustrated***

### PRODUCT FEATURES

- Available as 2, 4 or 8 key configuration.
- Features bi-colour light indicator with night light function.
- Built-in infrared receiver.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 84mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in United Kingdom, China, Malaysia, Singapore, Middle East and other regions.
- Compatible with 5038TX infrared remote control.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

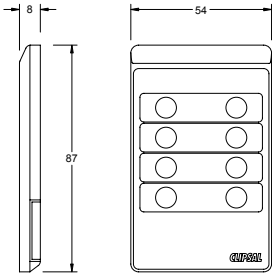
| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5052NL** | Key Input 2 Gang |
| **5054NL** | Key Input 4 Gang |
| **5058NL** | Key Input 8 Gang |
| **Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey | |
| **Accessory** | |
| **5050SD** | Spacers to Suit NEO Australia/US Standard Switches |

# C-Bus Remote Controls

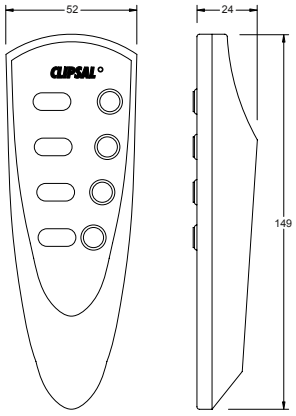
*5038TX*

*5084TX*

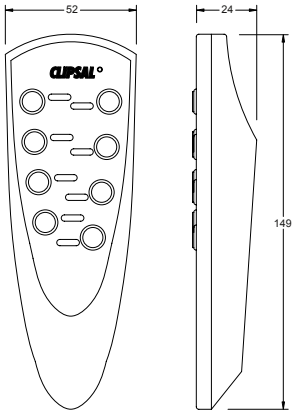
*5088TX*




*5038TX illustrated*




*5084TX illustrated*




*5088TX illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5038TX** | IR Remote Control, Credit Card Style, 8 Button |
| **5084TX** | IR Remote Control, Long Range, 4 Button |
| **5088TX** | IR Remote Control, Long Range, 8 Button |
| **5088TXC** | C-Bus Remote Control Holder (Spare) |

# Accessories for C-Bus ULTI Family Key Input Units

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5080LC-8** | Pre-labelled Caps |
| **5850F** | Mounting Frames to Suit C-Bus ULTI Australian/US Standard Switches (Pack of 5) |
| **Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black | |

*5080LC-8*

# Accessories for C-Bus NEO Family Key Input Units

***E5050IS, 2***

***5050IS, 2***

***5052NRP, 2***

***E5050OS, 2***

***5050OS, 2***

***5052NRI, 1***

***5052NRI, 2***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Inner Surrounds** | |
| **E5050IS** | Inner Surround, British Standard (Pack of 5) |
| **5050IS** | Inner Surround, Australian/US Standard (Pack of 5) |
| **Outer Surrounds** | |
| **E5050OS** | Outer Surround, British Standard (Pack of 5) |
| **5050OS** | Outer Surround, Australian/US Standard (Pack of 5) |
| **Rocker Switch Covers and Spacers** | |
| **5052NRP** | Rocker Switch Covers and Spacers for E5052NL and 5052NL (Pack of 5 Rocker Switch Covers and 10 Spacers) |
| **5054NRP** | Rocker Switch Covers and Spacers for E5054NL and 5054NL (Pack of 10 Rocker Switch Covers and 10 Spacers) |
| **5058NRP** | Rocker Switch Covers and Spacers for E5058NL and 5058NL (Pack of 20 Rocker Switch Covers) |
| **Rocker Switch Covers with ID Window** | |
| **5052NRI** | Rocker Switch Cover with ID Window (Pack of 10 Rocker Switch Covers) |

**Colour Selection: (1)** Battleship Grey, **(2)** White, **(3)** Cream, **(4)** Soft Grey, **(5)** Desert Sand, **(6)** Black, **(7)** Brown, **(8)** Brushed Aluminium*, **(9)** Gold*

**For Inner Surrounds only.*

# Reflection Key Input Units
## Australian/US Standard

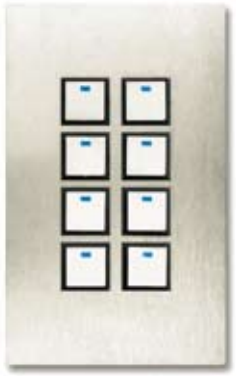
The Clipsal Reflections Series C-Bus Key Input Units are learn enabled, ultra flat, surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Suitable for exclusive interiors, the Reflection switches feature a screwless, high grade, stainless steel metal cover. The screwless design means that the aesthetics and architectural finish of the product provides a clean, stylish appearance.

The Reflection series also feature square, backlit, metal finish switch to maintain the aesthetics of the switch plate.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

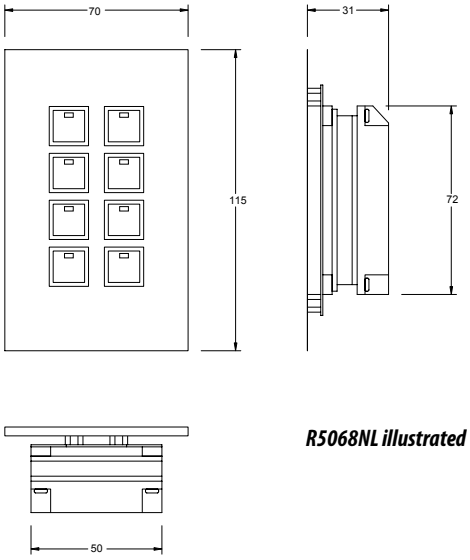


***R5068NL***

***R5060WB***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 20mA** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Status Indicator | **Programmable, Blue LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***R5068NL illustrated***

### PRODUCT FEATURES

- Available as 1, 2, 3, 4, 6 and 8 key configuration.
- Features blue light indicator with night light.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 84mm mounting centres (requires special wallbox for mounting).
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **R5061NL** | Key Input 1 Gang |
| **R5062VNL** | Key Input 2 Gang, Vertical |
| **R5063NL** | Key Input 3 Gang |
| **R5064VNL** | Key Input 4 Gang, Vertical |
| **R5066NL** | Key Input 6 Gang |
| **R5068NL** | Key Input 8 Gang |
| **Accessory** | |
| **R5060WB** | Wall Box for Reflection Series |

# 2000 Series Key Input Units
## Australian/US Standard

The Clipsal 2000 Series C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The 2000 Series switches are designed to complement Australian/US standard electrical power outlets and to suit standard Clipsal mounting accessories, such as brackets and wall boxes. The 2000 Series products are available in a wide range of colours and finishes to suit any décor.

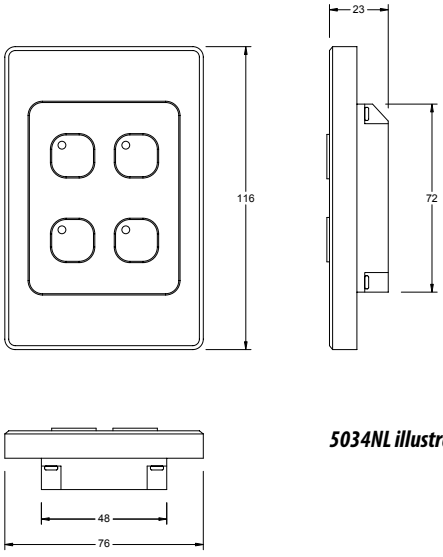
***5034NL, WE***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable, Orange LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

### PRODUCT FEATURES

- Available as 1, 2 or 4 key configuration.
- Programmable using learn mode or via the C-Bus configuration software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 84mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in Australia, New Zealand, United States, Thailand, Taiwan, Korea and others.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***5034NL illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5031NL** | Key Input 1 Gang |
| **5032NL** | Key Input 2 Gang |
| **5034NL** | Key Input 4 Gang |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black

# C2000 Classic Series Key Input Units
## Australian/US Standard

The Clipsal C2000 Series C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The C2000 Series switches are designed to complement Australian/US standard electrical power outlets and to suit standard Clipsal mounting accessories, such as brackets and wall boxes.

The C2000 Series switches feature a removable cover, which is available in a range of standard colours, metal and C-Graphics finishes.

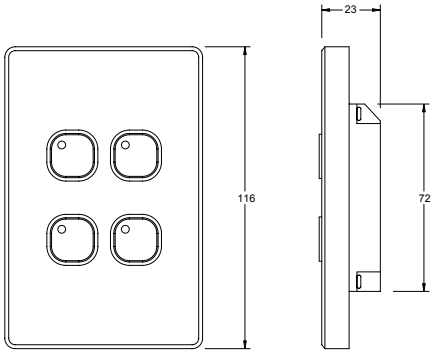
***C5034NL, WE***

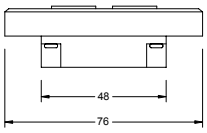
### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable, Orange LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Metal Covers (optional) | **BA, SS, BB, CH, GD** |
| C-Graphics (optional) | **MW, BW, RW, WM, GM, BM, DA, PA, CA, GE, SE and UE** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

### PRODUCT FEATURES

- Available as 1, 2 or 4 key configuration.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 84mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in Australia, New Zealand, United States, Thailand, Taiwan, Korea and others.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***C5034NL illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **C5031NL** | Key Input 1 Gang |
| **C5032NL** | Key Input 2 Gang |
| **C5034NL** | Key Input 4 Gang |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black

# SC2000 Slimline Series Key Input Units
## Australian/US Standard

The Clipsal SC2000 Slimline Series C-Bus Key Input Units are learn enabled ultra thin, surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The SC2000 Series switches are designed to complement Australian/US standard electrical power outlets and to suit standard Clipsal mounting accessories, such as brackets and wall boxes.

The SC2000 Series switches feature a removable cover, which is available in a range of standard colours and metal finishes.

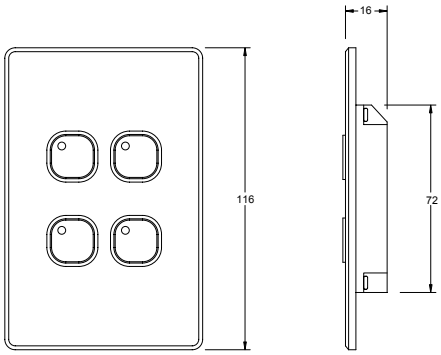
***SC5034BNL***

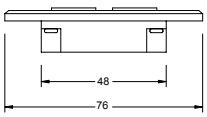
### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable, Orange or Blue LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Metal Covers (optional) | **BA, SS, BB, CH, GD** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

### PRODUCT FEATURES

- Available as 1, 2 or 4 key configuration.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 84mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in Australia, New Zealand, United States, Thailand, Taiwan, Korea and others.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***SC5034NL illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **SC5031NL** | Key Input 1 Gang, Orange LED Indicator |
| **SC5032NL** | Key Input 2 Gang, Orange LED Indicator |
| **SC5034NL** | Key Input 4 Gang, Orange LED Indicator |
| **SC5031BNL** | Key Input 1 Gang, Blue LED Indicator |
| **SC5032BNL** | Key Input 2 Gang, Blue LED Indicator |
| **SC5034BNL** | Key Input 4 Gang, Blue LED Indicator |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black

# SL2000 Eclipse Series Key Input Units
## Australian/US Standard

The Clipsal SL2000 Eclipse Series C-Bus Key Input Units are learn enabled ultra thin, surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The SL2000 Series switches are designed to complement Australian/US standard electrical power outlets and to suit standard Clipsal mounting accessories, such as brackets and wall boxes.

The SL2000 Series switches feature a removable cover, which is available in a range of standard colours and metal finishes.

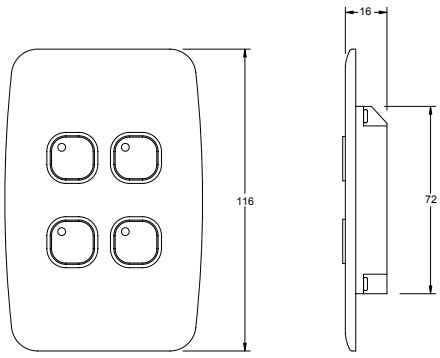
***SL5034BNL***

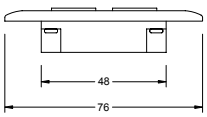
### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable, Orange or Blue LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Metal Covers (optional) | **BA, SS, BB, CH, GD** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

### PRODUCT FEATURES

- Available as 1, 2 or 4 key configuration.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 84mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in Australia, New Zealand, United States, Thailand, Taiwan, Korea and others.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***SL5034NL illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **SL5031NL** | Key Input 1 Gang, Orange LED Indicator |
| **SL5032NL** | Key Input 2 Gang, Orange LED Indicator |
| **SL5034NL** | Key Input 4 Gang, Orange LED Indicator |
| **SL5031BNL** | Key Input 1 Gang, Blue LED Indicator |
| **SL5032BNL** | Key Input 2 Gang, Blue LED Indicator |
| **SL5034BNL** | Key Input 4 Gang, Blue LED Indicator |

**Cover Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black

# E2000 Series Key Input Units
## British Standard

The Clipsal E2000 Series C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The E2000 Series switches are designed to complement British standard electrical power outlets and to suit standard Clipsal mounting accessories, such as brackets and wall boxes. The E2000 Series products are available in a wide range of colours and finishes to suit any décor.

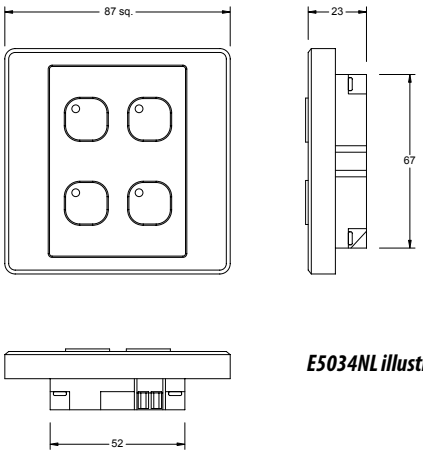
***E5034NL, WE***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable, Orange LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **60.3mm** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| C-Spectra (optional) | **S, SC1, SP1 and SD2** |
| C-Graphics (optional) | **MW, BW, RW, WM, GM, BM, DA, PA, CA, GE, SE and UE** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

### PRODUCT FEATURES

- Available as 1, 2 or 4 key configuration.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 60.3mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in the United Kingdom, China, Malaysia, Singapore, Middle East and most Asian regions.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***E5034NL illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5031NL** | Key Input 1 Gang |
| **E5032NL** | Key Input 2 Gang |
| **E5032VNL** | Key Input 2 Gang, Vertical |
| **E5034NL** | Key Input 4 Gang |

C**over Selection: (WE)** White Electric, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black

# "A" Style Deep Curve Metal Plates
## Australian/US Standard

The Clipsal Deep Curve Series C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

The key inputs are available in a deep metal cover finish, in either high polish, stainless steel or brass finish.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

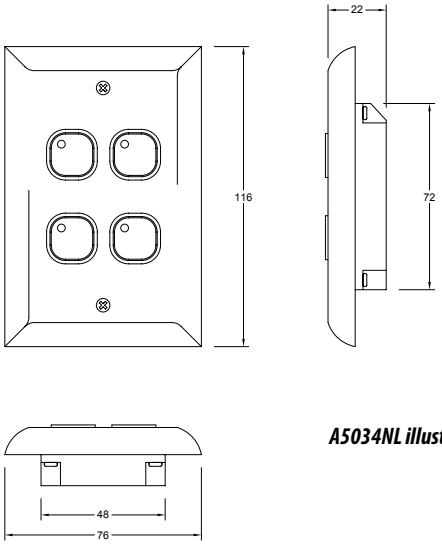
The Deep Curve Series switches are designed to complement Australian/US standard electrical power outlets and to suit standard Clipsal mounting accessories, such as brackets and wall boxes.

***A5034NI, WE***

***BA5034NL, WE***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable, Orange LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Standard Dolly Colours | **WE, BR or BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***A5034NL illustrated***

### PRODUCT FEATURES

- Available as 1, 2 or 4 key configuration.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 84mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in Australia, New Zealand, United States, Thailand, Taiwan, Korea and others.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Stainless Steel** | |
| **A5031NL** | Key Input 1 Gang |
| **A5032NL** | Key Input 2 Gang |
| **A5034NL** | Key Input 4 Gang |
| **Brass** | |
| **BA5031NL** | Key Input 1 Gang |
| **BA5032NL** | Key Input 2 Gang |
| **BA5034NL** | Key Input 4 Gang |

**Dolly Selection: (WE)** White Electric, **(BR)** Brown, **(BK)** Black

# "B" Style Flat Metal Plates
## Australian/US Standard

The Clipsal Flat Metal Series C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

The key inputs are available in a flat metal cover finish, available as high polish, stainless steel or brass finish.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

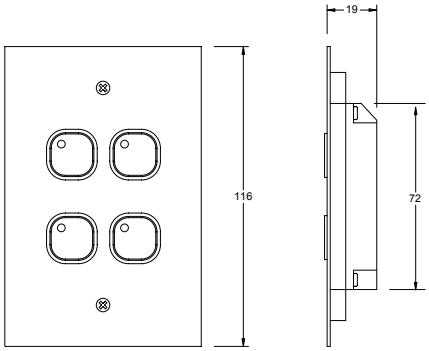
The Flat Metal Series switches are designed to complement Australian/US standard electrical power outlets and to suit standard Clipsal mounting accessories, such as brackets and wall boxes.

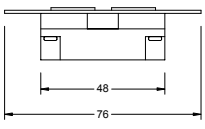
***B5034NL, WE***

***BB5034NL, WE***

### TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable, Orange LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm** |
| Standard Dolly Colours | **WE, BR or BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***B5034NL illustrated***

### PRODUCT FEATURES

- Available as 1, 2 or 4 key configuration.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Features 84mm mounting centres, compatible with Clipsal mounting boxes.
- Compatible with mounting accessories found in Australia, New Zealand, United States, Thailand, Taiwan, Korea and others.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Stainless Steel** | |
| **B5031NL** | Key Input 1 Gang |
| **B5032NL** | Key Input 2 Gang |
| **B5034NL** | Key Input 4 Gang |
| **Brass** | |
| **BB5031NL** | Key Input 1 Gang |
| **BB5032NL** | Key Input 2 Gang |
| **BB5034NL** | Key Input 4 Gang |
| **Dolly Selection: (WE)** White Electric, **(BR)** Brown, **(BK)** Black | |

# "B" Style Flat Metal Plates and Multi-Gang Series

The Clipsal Flat Metal Series C-Bus Key Input Units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network. Multi-gang wall switches are available from 8 to 24 gang.

The key inputs are available in a flat metal cover finish, available as high polish, stainless steel or brass finish.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

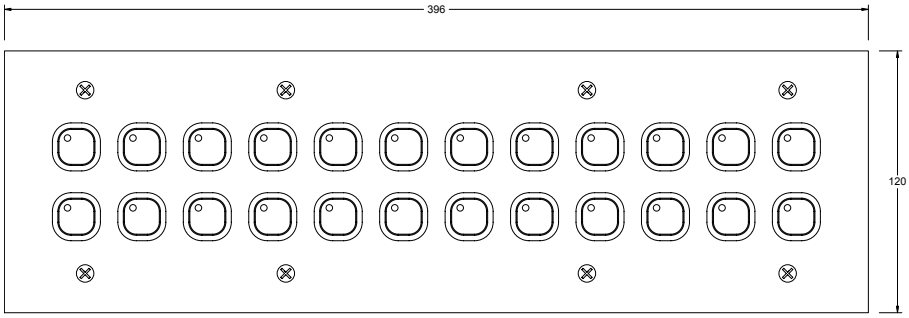
The Flat Metal Series switches are designed to complement Australian/US standard electrical power outlets and to suit standard Clipsal mounting accessories, such as brackets and wall boxes. Custom wall boxes are included with 12 gang or multi-gang versions.

***5024S162/4L, WE***

***5024B162/4L, WE***

## TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA (per 4 gang)** |
| Status Indicator | **Programmable, Orange LED** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Standard Dolly Colours | **WE, BR or BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***5024S164/8L illustrated***

## PRODUCT FEATURES

- Available from 8 to 24 key combinations.
- Programmable using learn mode or via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Available in stainless steel or brass finish.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Stainless Steel** | |
| **5008S164/3L** | Key Input 8 Gang |
| **5012S164/4L** | Key Input 12 Gang |
| **5016S164/6L** | Key Input 16 Gang, Horizontal |
| **5016S162/3L** | Key Input 16 Gang, Vertical |
| **5020S164/7L** | Key Input 20 Gang |
| **5024S164/8L** | Key Input 24 Gang, Horizontal |
| **5024S162/4L** | Key Input 24 Gang, Vertical |
| **5024S163/3L** | Key Input 24 Gang, Vertical |
| **Dolly Selection: (WE)** White Electric, **(BR)** Brown, **(BK)** Black | |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Brass** | |
| **5008B164/3L** | Key Input 8 Gang |
| **5012B164/4L** | Key Input 12 Gang |
| **5016B164/6L** | Key Input 16 Gang, Horizontal |
| **5016B162/3L** | Key Input 16 Gang, Vertical |
| **5020B164/7L** | Key Input 20 Gang |
| **5024B164/8L** | Key Input 24 Gang, Horizontal |
| **5024B162/4L** | Key Input 24 Gang, Vertical |
| **5024B163/3L** | Key Input 24 Gang, Vertical |
| **Dolly Selection: (WE)** White Electric, **(BR)** Brown, **(BK)** Black | |

# Ethernet Network Interface

The Ethernet Network Interface is a C-Bus device designed to provide an isolated communications path between an Ethernet 10 Base-T network and C-Bus network. This allows high-speed control and monitoring of a C-Bus installation via the TCP/IP protocols used in computer networks and by the Internet.

The Network Interface is a near instantaneous connection to a C-Bus network. It provides a gateway between high-speed, high bandwidth Ethernet communication and the robust, time tested Clipsal C-Bus Control System.

In addition to programming, the Network Interface provides similar convenience for third party applications to issue commands to a C-Bus network and monitor the behavior of units on the network. The Network Interface is assigned an IP address, just like a PC on a computer network. Once an IP address is assigned it is possible for a myriad of applications, applets and third party system to send C-Bus commands to the C-Bus network remotely.

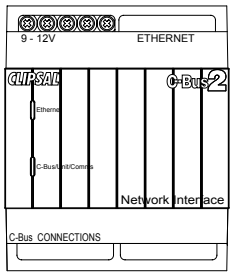
***5500CN***

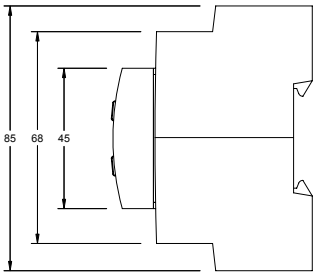
## TECHNICAL INFORMATION

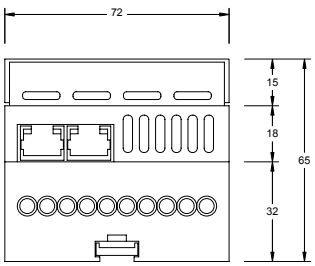
| | |
|---|---|
| Catalogue Number | **5500CN** |
| C-Bus Supply Voltage | **15-36VDC @ 22mA** |
| Ethernet Supply Voltage | **9-12VAC/DC** |
| Network Speed | **10 Base-T** |
| Network Protocol | **TCP/IP** |
| Status Indicators | **Network and C-Bus** |
| Network Burden | **Software selectable** |
| System Clock | **Software selectable** |
| C-Bus Termination | **2 x RJ45 sockets** |
| Ethernet Termination | **1 x RJ45 socket, shielded** |
| Power Pack | **Not included** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

## PRODUCT FEATURES

- Provides a TCP/IP interface to the C-Bus network.
- Provides high-speed backbone communications path.
- Permits any size C-Bus networks, overcomes restrictions of network size when Network Bridges are used.
- Programmable via the C-Bus configuration software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size.
- Designed to fit into standard electrical switchboards.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5500CN** | Computer Network Interface, 10 Base-T |

# PC Interface

The PC Interface is a C-Bus device designed to provide an isolated, bi-directional, interface between serial RS232 and the C-Bus network. Through the PC Interface, C-Bus units can be programmed, commands can be issued and activity on the C-Bus network can be monitored.

The PC Interface uses a standard RS232 serial port connection and allows an external device with RS232 output to interface to the C-Bus.

Installation of the PC Interface on the C-Bus network requires connection to the Category 5 unshielded twisted pair network cable. The connection to a personal computer is via the 9-pin D type serial connector or RJ45 connectors located on the unit.

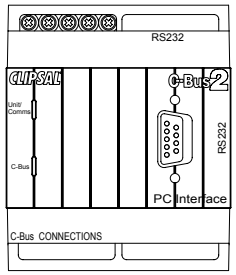
***5500PC***

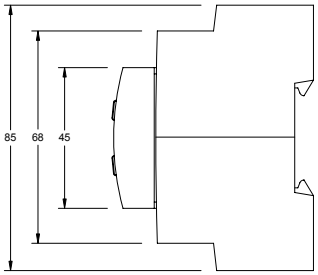
## TECHNICAL INFORMATION

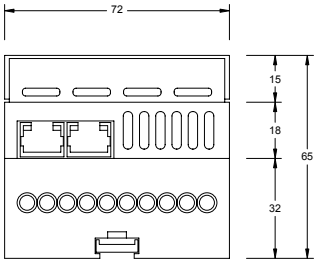
| | |
|---|---|
| Catalogue Number | **5500PC** |
| C-Bus Supply Voltage | **15-36VDC @ 32mA** |
| Serial Connection | **RS232, 9600bps** |
| Electrical Isolation | **500V RMS, C-Bus/RS232** |
| Status Indicators | **Unit and C-Bus** |
| Network Burden | **Software selectable** |
| System Clock | **Software selectable** |
| C-Bus Termination | **2 x RJ45 sockets** |
| Serial Termination | **2 x RJ45 and 1 x DB9 sockets** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

## PRODUCT FEATURES

- Provides a serial interface to the C-Bus network.
- C-Bus units may be configured, monitored or controlled via the serial connection.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size.
- Designed to fit into standard electrical switchboards.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5500PC** | PC Interface, RS232, C-Bus |

# Network Bridge

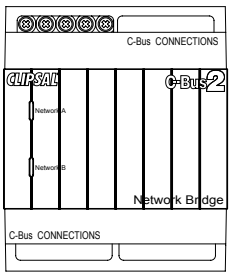
The Network Bridge is a network support device that provides an isolated communications channel between C-Bus units on separate networks. Both sides of the network bridge are optically isolated, providing electrical isolation between adjacent networks.

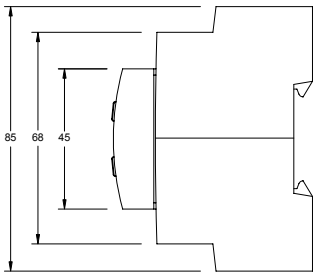
Network bridges are required to manage networks to particular units in particular zones, or to extend the network past system limitations of 100 passive units and 1000 metres of C-Bus cable in any one network.

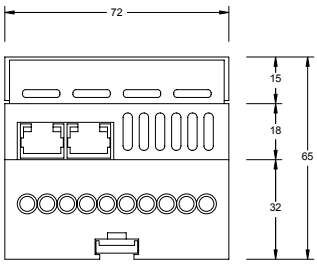
*5500NB*

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5500NB** |
| C-Bus Supply Voltage | **15-36VDC @ 20mA** |
| Electrical Isolation rating (between networks) | **3,500V RMS (opto-isolated, 1 minute)** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicators | **Network 1 and Network 2** |
| C-Bus Termination | **4 x RJ45 sockets (Network 1 and 2)** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




## PRODUCT FEATURES

- Provides an isolated communications path between networks.
- Programmable via the C-Bus configuration software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size.
- Designed to fit into standard electrical switchboards.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5500NB** | Network Bridge |

# Power Supply

The Power Supply converts the line voltage input to 36VDC output, required for correct operation by C-Bus devices. The power supply can source up to 350mA to the network and power supplies may be added in parallel as more C-Bus devices are added to the network, under these conditions the power supplies share the load current equally.

The power supplies feature short circuit and reverse polarity protection and the line voltage is galvonically isolated from the C-Bus output side.

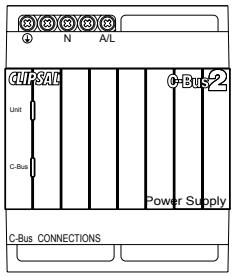
*5500PS*

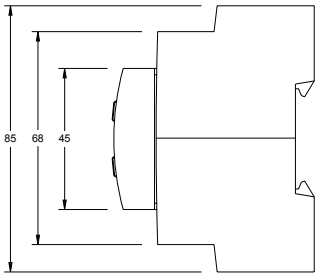
## TECHNICAL INFORMATION

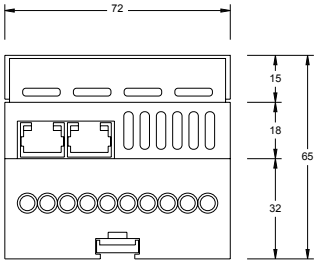
| Catalogue Numbers | 5500PS | E5500TPS |
|---|---|---|
| Line Supply Voltage | 220-240VAC | 110-120VAC |
| Supply Frequency | 47-53Hz and 57-63Hz | |
| Output Voltage | 32-39VDC | |
| Output Current | 350mA (maximum) | |
| Duration of Short Circuit on Output | Indefinite | |
| AC Isolation Mains/C-Bus | 3,750V RMS | |
| Warm-Up Time | 3 seconds | |
| Number of C-Bus Units, Supported by one Power Supply (Standard passive unit = 18mA) | 19 | |
| Maximum Number of Units on a Single C-Bus Network | 5 | |
| Maximum Voltage Drop Measured between Power Supply and Passive C-Bus Unit for Correct Operation | 10VDC | |
| Status Indicators | Unit and C-Bus | |
| C-Bus Termination | 2 x RJ45 sockets | |
| Line Termination | 2 x 1.5mm² or 1 x 2.5mm² | |
| Operating Temperature Range | 0˚C to 45˚C | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | |

## PRODUCT FEATURES

- Delivers up to 350mA to the C-Bus Network.
- High efficiency switched mode power supply design.
- Units may be operated in parallel on the same network.
- Does not require programming on installation.
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.




*E5500TPS illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| 5500PS | Power Supply, 220/240VAC, 50/60Hz, 350mA |
| E5500TPS | Power Supply, 110/120VAC, 50/60Hz, 350mA |

# Network Analyser

The Network Analyser is a field diagnostic tool designed to measure and report the status of various network parameters.

The network analyser connects to the C-Bus network and is used to measure the network voltage, active clock and network impedance and determine if these are within acceptable limits for correct operation.

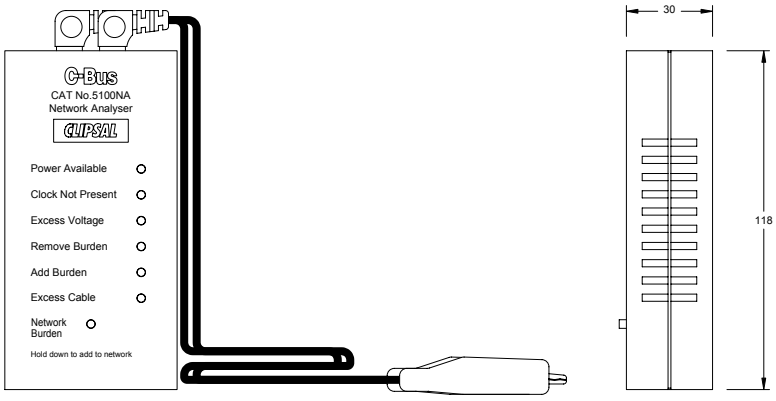
The unit displays the results by illuminating LEDs located on the unit.

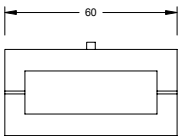
*Note: The network analyser should be used in conjunction with the C-Bus Calculator software application.*

***5100NA***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Numbers | **5100NA** |
| C-Bus Supply Voltage | **15-36VDC @ 20mA** |
| Status Indicators | **Power available**<br>**Clock not present**<br>**Excess voltage**<br>**Remove burden**<br>**Add burden**<br>**Excess cable** |
| C-Bus Termination | **2 x Alligator clips** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5100NA** | Network Analyser |

# C-Bus Network Cable

The C-Bus Network Cable is a Category 5, unshielded twisted pair cable specifically developed for use with the Clipsal C-Bus control network. The cable features a unique pink coloured outer sheath for ease of identification.

The cable is recommended for all C-Bus installations, and is mandatory for certified sites. The cable provides immunity to induced noise from external sources and superior crosstalk performance.

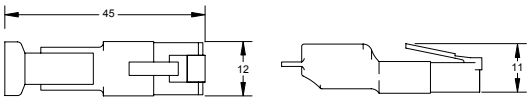
*5005C305B*

**TECHNICAL INFORMATION**

| | |
|---|---|
| Catalogue Number | **5005C305B** |
| Data Grade Insulation | **100 +/- 15 Ohms** |
| Length | **305m (boxed)** |
| DC Resistance | **<93.8 Ohms/1000m @ 20˚C** |
| Sheath | **Coloured PVC (pink), type V75 C, nominal diameter 5.2mm** |
| SRL | **24.69dB at 33.11MHz** |
| Power Sum NEXT | **53.84dB at 7.59MHz** |
| Construction | **4-Pair 1/0.51 (0.2mm²), 24AWG** |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5005C305B** | Cable, 4-Pair, UTP, Cat 5, 305m |
| **5005C305BHF** | Cable, 4-Pair, UTP, Cat 5, 305m, Halogen Free |

# Network Burden



*5000BUR*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5000BUR** | C-Bus Network Burden, RJ45 (Pack of 10) |

# C-Bus® USB PC Interface

The DIN rail mounted C-Bus USB PC Interface is a C-Bus system device designed to provide a gateway between a PC and C-Bus network. Through the C-Bus USB PC Interface, C-Bus units can be programmed, commands can be issued to the C-Bus network and activity on the C-Bus network can be monitored.

The C-Bus USB PC Interface uses a USB Type B socket and allows a PC with USB output to be interfaced to a C-Bus system. A 1 meter Type A to Type B USB cable is provided to connect the 5500PCU to a PC.

The USB PC Interface can be programmed to generate the C-Bus system clock for communications data synchronization on the C-Bus network and also provides a software selectable network burden.

Installation of the C-Bus USB PC Interface on the C-Bus network requires connection to the Category 5 unshielded twisted pair C-Bus network cable. The connection to a personal computer is via the Type A to Type B USB cable provided with the unit, as per above.

The unit incorporates C-Bus and Unit/Communications LED indicators. These LEDs indicate if the unit is powered and functional, if sufficient C-Bus network voltage is available, if a valid C-Bus clock is present and if data transfer is currently taking place.

## TECHNICAL INFORMATION

| Catalogue Numbers | **5500PCU** |
|---|---|
| C-Bus supply voltage | **15 to 36 VDC @22mA**<br>**Does not supply current to the C-Bus network** |
| C-Bus AC input impedance | **100 kΩ @ 1kHz** |
| C-Bus system clock | **Software selectable** |
| Network burden | **Software selectable** |
| Operation temperature range | **0 to 45°C (32 to 113°F)** |
| Operating humidity range | **10 to 95% RH** |
| Dimensions (W x H x D) | **72 x 92 x 63 mm** |
| Weight | **92g** |
| C-Bus Connections | **2 x RJ45 sockets (in parallel)** |
| PC Connection | **1 x USB type B** |

## PRODUCT FEATURES

- Provides a gateway between a PC and a C-Bus Network via USB connection
- DIN Rail mounted
- 4 DIN modules wide
- Requires connection to a C-Bus network via an unshielded twisted pair C-Bus network cable
- 2 x RF45 sockets provided for C-Bus connections
- Connection to a personal computer via a Type B socket located on the unit and a Type A to Type B USB cable (supplied)
- Capable of generating a C-Bus system clock for communications data synchronization
- Provides a software selectable network burden
- Consumes 32mA from the C-Bus network
- Incorporates a Unit/Communications LED indicator
- Incorporates a C-Bus LED indicator
- CE, FCC compliant

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5500PCU** | C-Bus® USB PC Interface |

# C-Bus Zone Thermostat

The 5070THB Series C-Bus Single Zone Thermostat is used to control heating/ventilation/air conditioning (HVAC) equipment, regulating the air temperature of a particular environment.

The 5070THBR model has built-in relays that can be connected to HVAC equipment which uses a standard 24 V AC RWG interface. The 5070THB model connects to HVAC equipment via an external C-Bus Relay unit (such as the 5508RVF). Apart from this, both models have the same features.

The air temperature is monitored by the unit's internal temperature sensor or optionally via an external C-Bus temperature sensor.

## TECHNICAL INFORMATION

| Catalogue Numbers | **5070THB** |
|---|---|
| C-Bus Supply Voltage | **15-36V DC, 40mA**<br>**Does not provide current to the C-Bus Network** |
| C-Bus AC Input Impedance | **50kΩ @ 1kHz** |
| Relays (5070THPR model) | **Each relay rated at 2A @24V AC**<br>**3750V Isolation between terminals and C-Bus** |
| C-Bus Connection | **One terminal block to accommodate 0.2 to 1.3mm2 (24 to 16 AWG)** |
| Temperature Sensor Accuracy | **=/- 0.5 °C (+/- 0.9 °F)** |
| C-Bus System Clock | **Software selectable** |
| Network Burden | **Software selectable** |
| Operating Temperature | **-10 to 50 °C (14 to 122 °F)** |
| Operating Humidity Range | **10 to 95% R.H.** |
| Dimensions (W x H x D) | **150 x 105 x 32mm**<br>**127 × 92 × 27mm** |
| Mounting Centres | **84 mm (horizontal)**<br>**60.3 mm (vertical)** |
| Weight<br>(Models with Stainless Steel Fascia) | **5070THBSS: 265 g**<br>**5070THBRSS: 280 g**<br>**5070THBSS: 265 g**<br>**5070THBRSS: 280 g** |

## PRODUCT FEATURES

- Support for control of HVAC units via C-Bus or internal relays ('RWG' control).
- Zone control of up to four switched zones for ducted systems (plus the common zone).
- 7 day programmable HVAC schedules.
- Support for remote temperature sensing by other C-Bus devices.
- Optional manual fan speed control (for HVAC plant that supports variable fan speeds).
- Setback capability for reducing energy consumption.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Single zone Thermostat** | |
| **5070THBRPG, WE** | Single zone thermostat complete with 5 relays for RWG plant control only, white Fascia ,Saturn style |
| **5070THBR, BK** | Single Zone Thermostat complete with 5 relays for RWG plant control only, Black Fascia |
| **5070THBRSS** | Single Zone Thermostat complete with 5 relays for RWG plant control only, stainless steel fascia |
| **5070THBPG, WE** | Single Zone Thermostat- No on-board relays, White Fascia (Saturn Style) |
| **5070THB, BK** | Single Zone Thermostat-No on-board relays, Black Fascia |
| **5070THBSS** | Single Zone Thermostat-No on-board relays, Stainless Steel Fascia |
| **4 Zone Thermostat with Programmable Time Scheduling** | |
| **5070THPRPG, WE** | Programmable 4 Zone Thermostat complete with 5 relays for RWG plant control only, white Fascia ,Saturn style |
| **5070THPR, BK** | Programmable 4 Zone Thermostat complete with 5 relays for RWG plant control only, Black Fascia |
| **5070THPRSS** | Programmable 4 Zone Thermostat complete with 5 relays for RWG plant control only, Stainless Steel Fascia |
| **5070THPPG, WE** | Programmable 4 Zone Thermostat- No on-board relays, White Fascia (Saturn Style) |
| **5070THP, BK** | Programmable 4 Zone Thermostat-No on-board relays, Black Fascia |
| **5070THPSS** | Programmable 4 Zone Thermostat-No on-board relays, Stainless Steel Fascia |
| **5031RDTSL** | Remote Temperature Sensor with broadcasting for Four Zone Thermostat |

# C-Bus Motorized Blinds/Curtains/Shutter Relay, 250VAC, No C-Bus Power Supply

The new C-Bus Shutter Motor Control Relay Units are designed to directly drive the motors for soft furnishing components like motorized blinds, curtains, shutters and awnings. The relay unit can be easy installed in the switchboard or in the field in the optional din-rail mount enclosure.

## TECHNICAL INFORMATION

| Catalogue Numbers | **L5501RBCP** |
|---|---|
| C-Bus Supply Voltage | 15-36V DC @ 22mA required for normal operation.<br>Does not provide current to the C-Bus Network |
| AC Input Impedance | 80kΩ @ 1kHz |
| Electrical Isolation | 3.75kV RMS from C-Bus to mains |
| Max. Units per Network | 80 |
| Load Current Rating | 2A (motor load) |
| Load Voltage Rating | 24V DC, 24-240V AC |
| Warm Up Time | 5 seconds |
| Network Clock | Software Selectable |
| Network Burden | Software Selectable |
| Class of Switch | Class II |
| Rated Impulse Withstand Voltage | 4 kV |
| Operating Temperature | 0° to 45° C |
| Operating Humidity | 10 to 95% RH |
| Dimensions (W x H x D) | 36 x 93 x 63 mm |
| Weight | 250g |
| Mains terminals | Accommodates 2 x 1.5mm2 or 1 x 2.5mm2 (2 x 15AWG or 1 x 13AWG) |
| Dimensions (W x H x D) | 159 x 75 x 47 mm |
| Mounting Centres | 84 mm |
| Weight | 116 g |

## PRODUCT FEATURES

- One, two or three button control
- Electrically Interlocked Relays
- Programmable delays between direction reversal
- Suitable for both AC and DC motors
- Optional 'field-mount' enclosure
- Direct Motor Control
- Local manual override buttons

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **L5501RBCP** | C-Bus Motorized Blinds/Curtains/Shutter Relay, 250VAC, No C-Bus Power Supply |
| **5501RE** | C-Bus Motorized Blinds/Curtains/Shutter Relay Enclosure |

# General Input Unit

The C-Bus 4 Channel General Input Units are DIN rail mount units designed to measure digital, voltage, current loop and thermistor inputs and generate messages to the C-Bus network.

The unit is designed to broadcast the actual measured value to the C-Bus network, which in turn may be displayed on other C-Bus devices such as the touch screen, C-Gate or C-Lution. In addition, the unit may trigger a Group Address as a function of the input level, up to eight trigger points may be assigned to a single input channel.

The general input unit is designed to interface to third party products, such as light level sensors, temperature sensors, power, frequency, moisture, rate sensors and others. In this way, the general input may be used to extend the functionality of the C-Bus and its ability to integrate with other systems such as HVAC and power monitoring systems. The general input also generates 24VDC to power the external sensors.

The general input units are available as passive models only, hence do not source current to the C-Bus network.

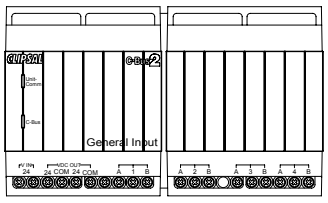
*E5504GI*

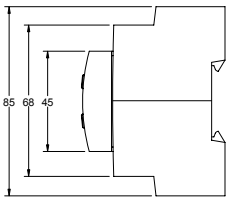
## TECHNICAL INFORMATION

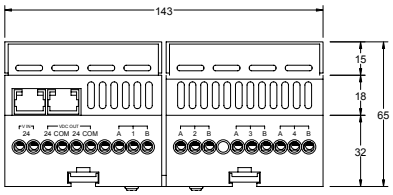
| | |
|---|---|
| Catalogue Number | **E5504GI** |
| Supply Voltage | **24VAC +/- 10% @ 500mA, power pack not supplied with the unit** |
| Supply Frequency | **50/60Hz** |
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Auxiliary Output | **24VDC @ 250mA** |
| Voltage Inputs | **0 - 1V, 0 - 5V, 0 - 10V and 0 - 20V** |
| Current Inputs | **0 - 20mA and 4 - 20mA** |
| Impedance Inputs | **0 - 500Ω, 0-1kΩ and 0-3kΩ** |
| Digital Inputs | **Yes** |
| Broadcast Rate | **2 to 1,024 seconds** |
| Maximum Number of Units on a Single C-Bus Network | **10** |
| Status Indicators | **Unit and C-Bus** |
| A/D Conversion | **8 - bit** |
| Accuracy | **0.5%** |
| Warm Up Time | **5 seconds** |
| Network Clock | **Software selectable** |
| Network Burden | **Software selectable** |
| C-Bus Termination | **2 x RJ45 Socket** |
| Load Termination | **2 x 1.5mm² or 1 x 2.5mm²** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

## PRODUCT FEATURES

- Provides 4 channels of input, compatible with a range of third party sensor products.
- Capable of threshold switching or broadcasting value onto the network.
- Programmable via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Designed to fit standard 35mm top hat DIN rail, measures just 8M in size.
- Designed to fit into standard electrical switchboards.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5504GI** | 4 Channel General Input Unit |

# Bus Coupler
## Learn Enabled

The C-Bus Bus Couplers provide non-isolated inputs for voltage free, mechanical switches to interface to the C-Bus network. The bus couplers support momentary and latching switch types.

The bus coupler units may be programmed with the same functions as a key input, including toggle, timer, dimmer and scene control.

The four channel bus couplers provides support for 4 switches, while the 2 channel bus coupler supports 2 switches and provides drive for 2 external LEDs, which are programmed to report the state of the switch.

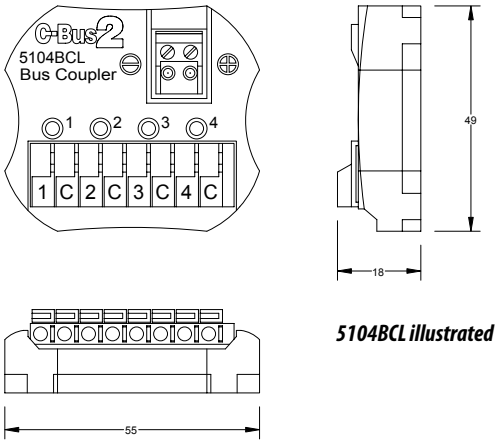
The bus couplers are small in size and volume and are designed to fit into any wallbox.

*5104BCL*

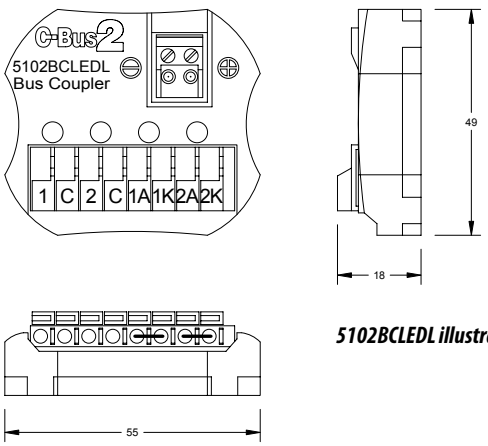
*5102BCLEDL*

### TECHNICAL INFORMATION

| Catalogue Number | 5104BCL | 5102BCLEDL |
|---|---|---|
| C-Bus Supply Voltage | 15-36VDC @ 18mA | |
| Maximum Distance between Switch and Bus Coupler | 1m | 0.3m |
| Number of Channels | 4 | 2 |
| LED Drive Output | 0mA | 2mA @ 12V |
| Maximum Number of Units on a Single C-Bus Network | 100 | |
| Status Indicators | Channel (4) | Channel (2) |
| Warm Up Time | 5 seconds | |
| C-Bus Termination | Screw terminals | |
| Load Termination | Push Terminals, 1 x 1.5mm² | |
| Operating Temperature Range | 0˚C to 45˚C | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | |




*5104BCL illustrated*




*5102BCLEDL illustrated*

### PRODUCT FEATURES

- Provides 2 or 4 channels of input, compatible with voltage free mechanical switches.
- Programmable by learn mode or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Small in size and volume, designed to fit into any wallbox.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5104BCL** | 4 Channel Bus Coupler |
| **5102BCLEDL** | 2 Channel Bus Coupler with LED Drive |

# Auxiliary Input Unit
## Learn Enabled

The C-Bus Auxiliary Input Unit is a DIN rail mount unit that provides four isolated inputs for voltage free, mechanical switches to interface to the C-Bus network. The auxiliary input supports momentary and latching switch types.

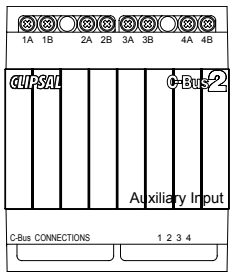
The auxiliary input unit features learn mode, Channel, C-Bus and Unit status indicators.

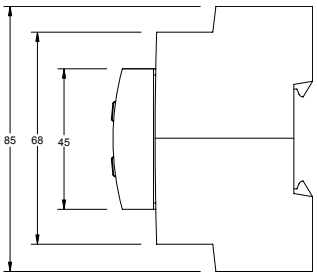
The auxiliary input unit may be programmed with the same functions as a key input, including toggle, timer, dimmer and scene control.

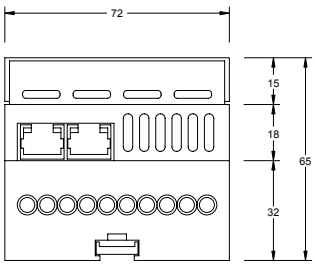
*L5504AUX*

### TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **L5504AUX** |
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Switch Isolation | **500V** |
| Maximum Switch and Cable Impedance | **1000Ω** |
| Switch Open Voltage | **5V** |
| Switch Closed Current | **0.4mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicators | **Channel (4), Unit and C-Bus** |
| Warm Up Time | **5 seconds** |
| C-Bus Termination | **2 x RJ45 Sockets** |
| Load Termination | **2 x 1.5mm² or 1 x 2.5mm²** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




### PRODUCT FEATURES

- Provides 4 channels of input, compatible with voltage free mechanical switches.
- Isolated inputs, up to 500V isolation.
- Programmable by learn mode or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size.
- Designed to fit into standard electrical switchboards.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **L5504AUX** | 4 Channel Auxiliary Input Module |

# Pascal Automation Controller

The Pascal Automation Controller (PAC) is a DIN rail mounted C-Bus device that provides sophisticated and affordable control of a Clipsal C-Bus system. The PAC can perform operations in response to monitored events by executing custom written embedded programs. These programs are written by installers to suit individual application needs using the Microsoft Windows™ based Programming Interface for C-Bus Embedded Devices or 'PICED' software.

The PAC provides a USB interface through which programs are downloaded. The USB connection can also be used to communicate directly with a C-Bus installation via a PC. This allows the PAC to function as a PC Interface and can be used by the C-Bus Toolkit Software when configuring a C-Bus installation.

The PAC is a native C-Bus device and is able to interact with the complete range of C-Bus and C-Bus Wireless products.

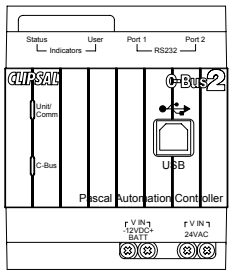
***5500PACA***

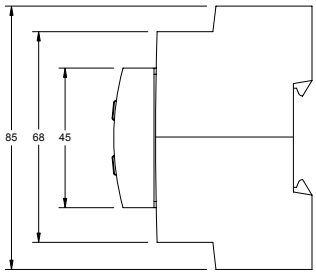
## TECHNICAL INFORMATION

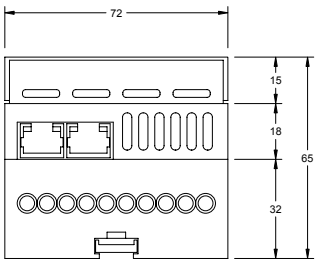
| | |
|---|---|
| Catalogue Number | **5500PACA** |
| C-Bus Supply Voltage | **15-36VDC @ 32mA** |
| Battery Backup Supply Voltage | **12VDC @ 30mA** |
| Network Clock | **Software selectable** |
| Network Burden | **Software selectable** |
| Maximum Number of C-Bus Applications Supported | **10** |
| C-Bus Connections | **2 x RJ45 Sockets** |
| RS-232 Port Connectors | **2 x RJ45** |
| Dimensions | **72mm(W) x 92mm(H) x 63mm(D)** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |

## PRODUCT FEATURES

- Conditional and real-time events programming for C-Bus.
- Dedicated scheduling, logic and scene programming modules.
- Connects and powered from C-Bus.
- Programmable using the C-Bus Toolkit Software.
- Includes a built-in real time clock.
- Compact size, 4M DIN modules wide.
- 2 x RS-232 ports for third party device control.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5500PACA** | C-Bus Pascal Automation Controller |

# Outdoor Motion Sensor, 110 Degrees

The C-Bus Outdoor Occupancy Sensors are surface mount, input units used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.

The sensor has a detection field that covers an area up to 18 metres from the unit, with a field of view of 110 degrees. Advanced microprocessor circuit technology and a flat multi-segmented lens, divide the field of view into 28 zones located at four different levels. This ensures immediate reaction of body movement and reduces the number of' dead zones' that can be penetrated.

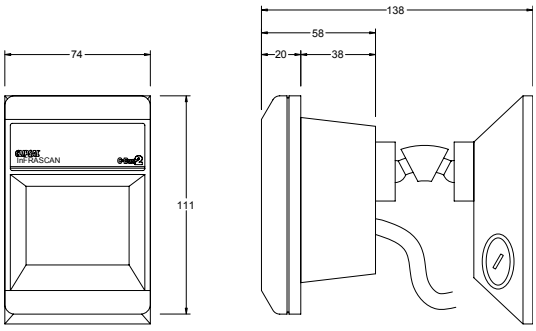
The sensor features learn mode, which permits the unit to be programmed without the need for a PC connected to the system.

The sensor features an environmental rating of IP66 and is suitable for outdoor applications.

***5750WPL***

## TECHNICAL INFORMATION

| Catalogue Number | **5750WPL** | **E5750WPL** |
|---|---|---|
| Base, Mounting Centres | **84mm** | **60.3mm** |
| C-Bus Supply Voltage | **15-36VDC @ 18mA** | |
| Timer Range | **Programmable, 1 sec - 18 hrs** | |
| Timer Resolution | **1 sec** | |
| Light Threshold Adjustment | **User adjustable, 1 Lux to full sunlight** | |
| Mounting Height | **2.4m nominal, (2.0 to 3.2m)** | |
| Field of View | **110 degrees** | |
| Detection Area | **18m radius x 110 degrees** | |
| Lens Type | **Frensel, multi-segmented** | |
| Maximum Number of Units on a Single C-Bus Network | **100** | |
| Status Indicator | **Walk test LED** | |
| Warm Up Time | **5 seconds** | |
| C-Bus Termination | **Fly lead x 2** | |
| IP Rating | **IP66** | |
| Operating Temperature Range | **0˚C to 45˚C** | |




***5750WPL illustrated***

## PRODUCT FEATURES

- Programmable by learn mode or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Programmable walk test LED for commissioning.
- User adjustable light level threshold, from low light (1 Lux) to full sunlight.
- Dual element detectors to minimise false triggering.
- Optical bandpass filter minimises unwanted heat sources from triggering the circuitry.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5750WPL** | Occupancy Sensor, Infared, IP66, 110 Degrees (British Standard) |
| **5750WPL** | Occupancy Sensor, Infared, IP66, 110 Degrees (Australian/US Standard) |

# Indoor Motion Sensor, 90 Degrees

The C-Bus Indoor Occupancy Sensors are surface mount, input units used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.

The sensor has a detection field that covers an area up to 8.5 metres from the unit, with a field of view of 90 degrees. The unit features a ' lens less' design with 12 overlapping zones forming a continuous detection field. Therefore resulting in uniform sensitivity across the whole of the detection field, with no dead zones. This features allows the sensor to be ceiling or wall mounted.

The sensor features learn mode, which permits the unit to be programmed without the need for a PC connected to the system.

The sensor features an environmental rating of IP44 and is suitable for indoor applications. The sensor is designed for surface mount applications, and located in the corner of the room where detection is required.

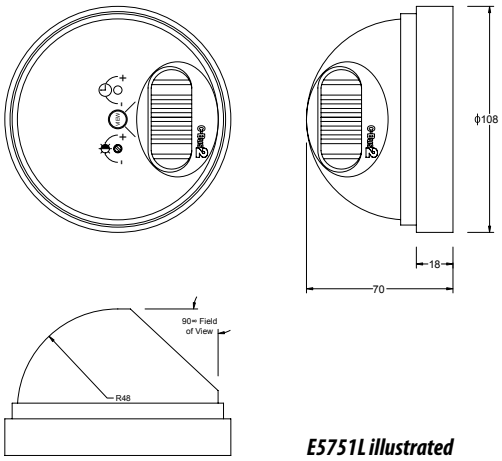
***E5751L***

## TECHNICAL INFORMATION

| Catalogue Number | **5751L** | **E5751L** |
|---|---|---|
| Base, Mounting Centres | **84mm** | **60.3mm** |
| C-Bus Supply Voltage | **15-36VDC @ 18mA** | |
| Timer Range | **Programmable, 1 sec - 18 hrs** | |
| Timer Resolution | **1 sec** | |
| Light Threshold Adjustment | **User adjustable, 1 Lux to full sunlight** | |
| Mounting Height | **2.4m nominal, (2.0 to 3.2m)** | |
| Field of View | **90 degrees** | |
| Detection Area | **6m x 6m** | |
| Maximum Number of Units on a Single C-Bus Network | **100** | |
| Status Indicator | **Walk test LED** | |
| Warm Up Time | **5 seconds** | |
| IP Rating | **IP44** | |
| C-Bus Termination | **Fly lead x 2** | |
| Operating Temperature Range | **0˚C to 45˚C** | |
| Operating Humidity Range | **0 - 95% RH, non-condensing** | |

## PRODUCT FEATURES

- Programmable by learn mode or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Programmable walk test LED for commissioning.
- User adjustable light level threshold, from low light (1 Lux) to full sunlight.
- Dual element detectors to minimise false triggering.
- Optical bandpass filter minimises unwanted heat sources from triggering the circuitry.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***E5751L illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5751L** | Occupancy Sensor, Infrared, 90 Degrees (British Standard) with Mounting Base |
| **5751L** | Occupancy Sensor, Infrared, 90 Degrees (Australian/US Standard) |
| **751MB** | Mounting Base for 5751L Sensor |

# Indoor Motion Sensor, 360 Degrees

The C-Bus Indoor Occupancy Sensors are flush mount, input units used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.

The sensor has a detection field that covers an elliptical area up to 12m x 14m, with a field of view of 360 degrees. The unit features a multi-segmented Fresnel lens design, for superior detection capability.

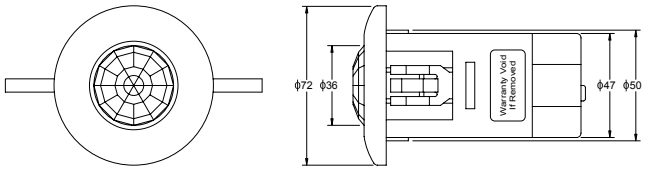
The sensor features learn mode, which permits the unit to be programmed without the need for a PC connected to the system.

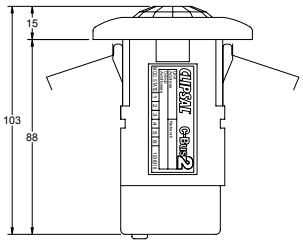
The sensor features an environmental rating of IP44 and is suitable for indoor applications. The sensor is compact in size, and is designed for flush mount applications, located at the centre of the detection area.

*5753L*

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5753L** |
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Timer Range | **Programmable, 1 sec - 18 hrs** |
| Timer Resolution | **1 sec** |
| Light Threshold Adjustment | **User adjustable, 1 Lux to full sunlight** |
| Mounting Height | **2.4m nominal, (2.0 to 3.2m)** |
| Field of View | **360 degrees** |
| Detection Area | **12m x 14m** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Walk test LED** |
| Warm Up Time | **5 seconds** |
| IP Rating | **IP44** |
| C-Bus Termination | **Screw terminals** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




## PRODUCT FEATURES

- Programmable by learn mode or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Programmable walk test LED for commissioning.
- User adjustable light level threshold, from low light (1 Lux) to full sunlight.
- Dual element detectors to minimise false triggering.
- Optical bandpass filter minimises unwanted heat sources from triggering the circuitry.
- Designed for flush mount applications, protrudes only 8mm.
- C-Tick (Australia/New Zealand), CE (European Community), FCC (United States) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5753L** | Occupancy Sensor, Infrared, Flash Mount, 360 Degrees |

# Indoor Multi-Sensor, 360 Degrees

The C-Bus Indoor Occupancy Sensors are surface mount, input units used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.

The sensor has a detection field that covers an area up to 8.5 metres from the unit, with a field of view of 90 degrees. The unit features a 'lens less' design with 12 overlapping zones forming a continuous detection field. Therefore resulting in uniform sensitivity across the whole of the detection field, with no dead zones. This features allows the sensor to be ceiling or wall mounted.

The sensor features learn mode, which permits the unit to be programmed without the need for a PC connected to the system.

The sensor features an environmental rating of IP44 and is suitable for indoor applications. The sensor is designed for surface mount applications, and located in the corner of the room where detection is required.

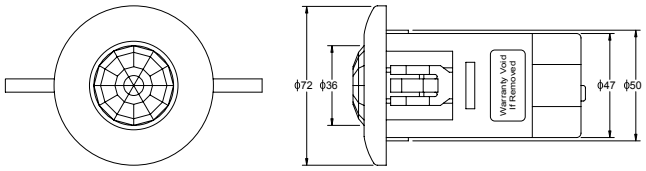
***5753PEIRL***

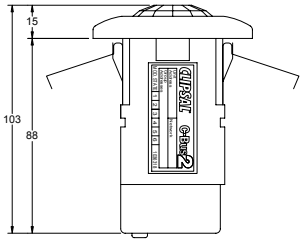
## TECHNICAL INFORMATION

| Catalogue Number | **5753PEIRL** |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Timer Range | **Programmable, 1 sec - 18 hrs** |
| Timer Resolution | **1 sec** |
| Light Threshold Adjustment | **Programmable, 1 Lux to full sunlight** |
| Light Regulation | **40 - 3000 Lux** |
| Mounting Height | **2.4m nominal, (2.0 to 3.2m)** |
| Field of View | **360 degrees** |
| Detection Area | **Programmable, up to 12m x 8.5m** |
| IR Receiver | **Remote enabled/disable control** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Walk test and IR receive LED** |
| Warm Up Time | **5 seconds** |
| IP Rating | **IP44** |
| C-Bus Termination | **Screw terminals** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

## PRODUCT FEATURES

- Programmable by learn mode or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Programmable walk test LED for commissioning.
- User adjustable light level threshold, from low light (1 Lux) to full sunlight.
- Dual element detectors to minimise false triggering.
- Optical bandpass filter minimises unwanted heat sources from triggering the circuitry.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5753PEIRL** | Combination Sensor, Motion with Light Level Sensor and IR Receiver, Flush Mount, 360 Degrees |

# Clock Modules

The C-Bus Clock Modules are surface mount, input units used to provide basic timing functions and convenient control of C-Bus output units.

The clock modules are 7-day timers, featuring 42 program storage locations for event programming. Events may be programmed up to 6 days in advance and event durations may be up to 99 days.

Whereas, the clock modules are powered from the two wire C-Bus connection, they feature a rechargeable power storage that maintains the clock for up to 24 hours, in the event of loss of the C-Bus power supply.

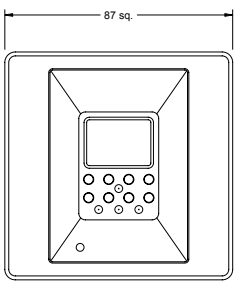
The clock modules also feature a daylight saving option and random check generator from 5 to 60 minutes.

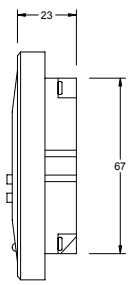
*E5031/2TC7, WE*

*5031V2TC7, WE*

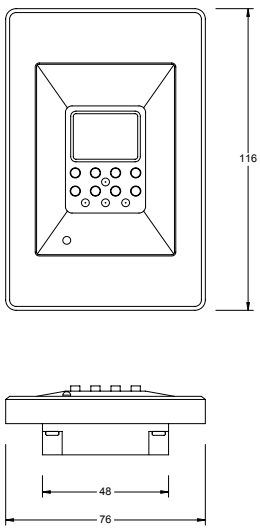
## TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Timer | **7 day** |
| Number of Channels | **2** |
| Memory Locations | **42** |
| Accuracy | **2.5 sec/day @ 20˚C** |
| Timer Resolution | **1 minute** |
| Running Reserve | **24 hours (without C-Bus power)** |
| Reserve Charge Time | **2 minutes** |
| Daylight Saving Mode | **Yes** |
| Random Event Generator | **5 to 60 minutes** |
| Display | **Iconic LCD display, grey scale** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable** |
| Warm Up Time | **5 seconds** |
| C-Bus Termination | **Screw terminals** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |



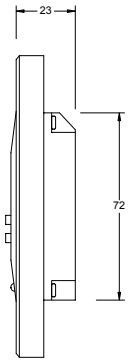




*E5031/2TC7 illustrated*










*5031V2TC7 illustrated*

## PRODUCT FEATURES

- Programmable using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Reserve power backup in case of loss of C-Bus supply.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Australian/US Standard** | |
| **5031H2TC7** | 2 Channel Clock, 7 Days, Horizontal Mount |
| **5031V2TC7** | 2 Channel Clock, 7 Days, Vertical Mount |
| **Colour Selection: (WE)** White, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black | |
| | |
| **British Standard** | |
| **E5031/2TC7** | 2 Channel Clock, 7 Days, Horizontal Mount |
| **Colour Selection: (WE)** White, **(BK)** Black | |

# Temperature Sensors

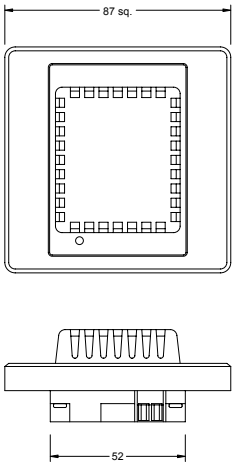
The C-Bus Temperature Sensors are surface mount, input units used to measure ambient temperature and control either cooling mode or heating mode, but not both simultaneously.

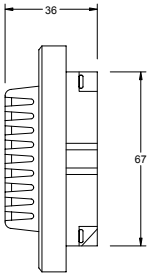
The sensor has a range of 0 to 50 degrees Centigrade, with programmable target temperature and margin. In addition, the unit features an economy mode where the target temperature is stepped back. This feature is used to save energy when the room is unoccupied.

The temperature sensor is used in conjunction with C-Bus, interlocked relays to control HVAC equipment.

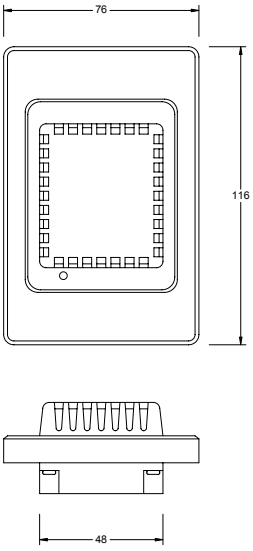
## TECHNICAL INFORMATION

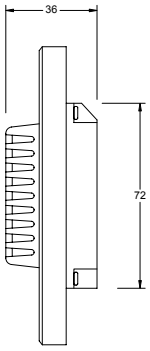
| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Accuracy | **+/- 1˚C** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable** |
| Warm Up Time | **5 seconds** |
| C-Bus Termination | **Screw terminals** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***E5031TS illustrated***




***5031TS illustrated***

***E5031TS, WE***

***5031TS, WE***

## PRODUCT FEATURES

- Programmable using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Programmable Target Temperature and Margin.
- Programmable heating or cooling mode.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Australian/US Standard** | |
| **5031TS** | Temperature Sensor, 0-50 Degrees Centigrade |
| **Colour Selection: (WE)** White, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black | |
| | |
| **British Standard** | |
| **E5031TS** | Temperature Sensor, 0-50 Degrees Centigrade |
| **Colour Selection: (WE)** White, **(BK)** Black | |

# Light Level Sensors

The C-Bus Light Level Sensors are surface mount input units used to measure ambient light levels and regulate lighting loads.

The sensor has a field of view of 180 degrees, and is capable of measuring lighting levels in the range of 20 to 3000 Lux and regulating lighting in the range of 40 to 1600 Lux, which is suitable for most commercial applications.

The light level sensor may be used in conjunction with non-dimmable ballasts to bank switch luminaires or with dimmable electronic ballasts to regulate lighting levels continuously, within a programmed target range.

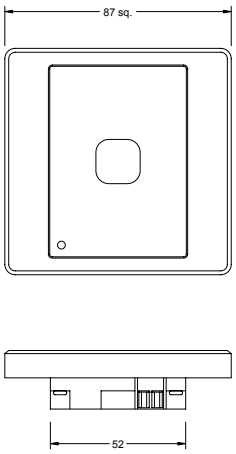
The unit features built in lag, to prevent rapid changes in output, due to changes in environmental conditions, such as cloud cover or rapid movement through the detection area.

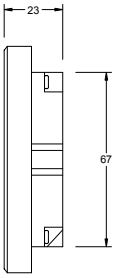
***E5031PE, WE***

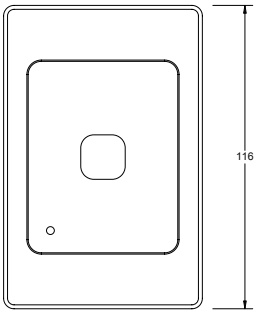
***5031PE, WE***

## TECHNICAL INFORMATION

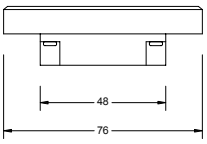
| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Light Level (measure) | **20 - 3000 Lux** |
| Light Level (regulate) | **40 - 1600 Lux** |
| Time Constant | **Approx. 90 seconds** |
| Mounting Height | **2.4m nominal, (2.0 to 3.2m)** |
| Field of View | **180 degrees** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicator | **Programmable** |
| Warm Up Time | **5 seconds** |
| C-Bus Termination | **Screw terminals** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

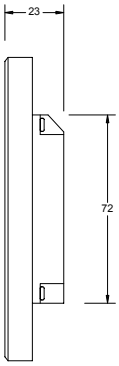



***E5031PE illustrated***




***5031PE illustrated***

## PRODUCT FEATURES

- Programmable using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Programmable Target Light Level and Margin.
- Bank switching or light level regulation.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Australian/US Standard** | |
| **5031PE** | Light Level Sensor, 40-1600 Lux |
| **Colour Selection: (WE)** White, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black | |
| **British Standard** | |
| **E5031PE** | Light Level Sensor, 40-1600 Lux |
| **Colour Selection: (WE)** White, **(BK)** Black | |
| **IP66 Weatherproof Series** | |
| **E5031PEWP** | Light Level Sensor, 40-1600 Lux, IP56 |

# Telephone Interface

The C-Bus Telephone Interface Unit provides a remote telephone interface to the C-Bus network. The dial in, dial out facility permits user to dial in and navigate a voice prompt menu to monitor and control devices on the C-Bus network from a remote location. Control is exercised using the DTMF keypad on the phone.

The telephone interface facilities a connection to the C-Bus network for remote programming of the units using the C-Bus Toolkit Software.

An audio output is also included so that C-Bus events can be audibly announced. The telephone interface connects to either the Public Switched Telephone Network (PSTN) or to a local PABX.

The C-Bus Telephone Interface Unit includes the facility to issue voice prompts, send commands, report status and to obtain operator responses using DTMF tones. The responses are turned into actions on a C-Bus network.

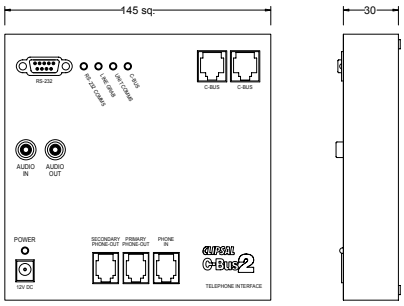
For added security, the telephone interface requires the telephone user to enter a user profile number and password to access the voice prompt menus. Upon receipt of the correct password, the unit activates a voice prompt menu and directs the user to available actions or more menus.

The telephone interface incorporates a history log, is supplied pre-loaded with a standard library of words and phrases and supports multiple languages.

***5100TAU***

## TECHNICAL INFORMATION

| Catalogue Numbers | **5100TAU** |
|---|---|
| C-Bus Supply Voltage | **15 - 36VDC @ 20mA** |
| CBTI Power Supply | **12VDC or 15VAC, 50/60Hz supplied with AUS 3 pin power pack** |
| Status Indicators | **C-Bus, Line Grab, Serial Comms. and Internal Comms.** |
| Modes | **Home and Away** |
| C-Bus Connection | **2 x RJ45 sockets** |
| PC Interface Connection | **DB9 socket** |
| Telephone Connection | **3 x RJ12 sockets (1 incoming/2 outgoing)** |
| Audio Connection | **2 RCA sockets (in/out)** |
| Network Burden | **Software selectable** |
| System Clock | **Software selectable** |
| Voice Library | **User programmable** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***5100TAU illustrated***

## PRODUCT FEATURES

- Programmable using the C-Bus Telephone Interface configuration software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Audio out (line out) to annunciate messages.
- Includes user profile number and password to access voice prompt menus.
- Remote programming of the C-Bus devices.
- Supports communication through C-Bus network bridges.
- A-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5100TAU** | Telephone Interface Module, Australian (Power Pack Included) |
| **5100TMB** | Telephone Mounting Bracket |

# Infrared Receivers

The Clipsal C-Bus Infrared Receivers are learned enabled, surface switches designed to control lighting and other electrical services connected to a C-Bus Network. These units feature push button switches and an infrared receiver on the same unit.

The Infrared Receivers are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

For added convenience and flexibility, a 4-key and 12-key remote control unit is available to be used with the Infrared Receivers. The 12-key remote unit can control up to three Infrared Receivers.

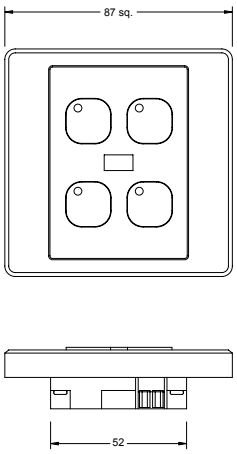
The Infrared Receiver communicates with all other units and obtains power via a single twisted pair of connections to the C-Bus. In the event of C-Bus power failure, its non-volatile memory retains all programmed information relating to the unit's operating status.

***E5034NIRL, WE***

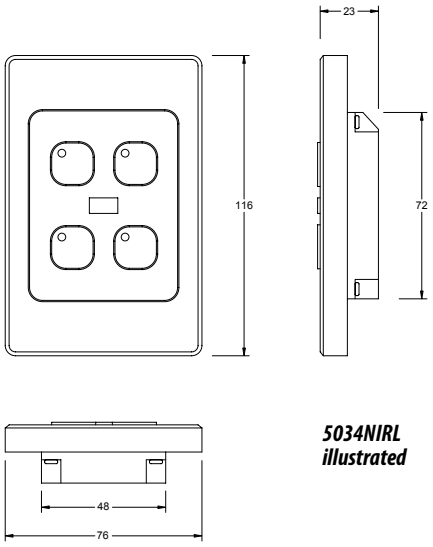
***5034NIRL, WE***

## TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicators | **Programmable, Orange LEDs** |
| Field of View (Remote Control) | **+/- 45 degrees** |
| Operating Distance Remote Control | **4m (at 0 degrees)** |
| Timer Range | **1 sec to 18 hrs** |
| Timer Resolution | **1 sec** |
| Dimmer Control | **255 possible levels** |
| Mounting Centres | **84mm (AUS/US) and 60.3mm (UK)** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***E5034NIRL illustrated***




***5034NIRL illustrated***

## PRODUCT FEATURES

- Available as IR receiver or IR receiver plus 4 key configuration.
- Programmable using learn mode or via the C-Bus configuration software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Switches may be assigned to banks A, B or C of remote control.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Australian/US Standard** | |
| **2000 Series** | |
| **5031NIRL** | 4 Channel Infrared Receiver |
| **5034NIRL** | 4 Channel Infrared Receiver with 4-Keys |
| **C2000 Classic Series** | |
| **C5031NIRL** | 4 Channel Infrared Receiver |
| **C5034NIRL** | 4 Channel Infrared Receiver With 4-Keys |
| **SC2000 Slimline Series** | |
| **SC5031NIRL** | 4 Channel Infrared Receiver |
| **SC5034NIRL** | 4 Channel Infrared Receiver with 4-Keys |
| **SL2000 Eclipse Series** | |
| **SL5031NIRL** | 4 Channel Infrared Receiver |
| **SL5034NIRL** | 4 Channel Infrared Receiver with 4-Keys |
| **Colour Selection:** | **(WE)** White, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream **(BR)** Brown, **(BK)** Black |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **British Standard** | |
| **E2000 Series** | |
| **E5031NIRL** | 4 Channel Infrared Receiver |
| **E5034NIRL** | 4 Channel Infrared Receiver with 4-Keys |
| **Colour Selection:** | **(WE)** White, **(BK)** Black |

| | |
|---|---|
| **Infrared Remote Controls** | |
| **5034TX** | 4-Key Infrared Transmitter |
| **5034TX12** | 12-Key Infrared Transmitter |

# Universal Remote Control

The 5030URC is a learning, universal remote control unit that is simple to program and use. By learning the infrared codes of other remote control devices, it allows this single remote control unit to replace all these remote control units, while providing all the same functions.

The Universal Remote Control supports up to 16 devices in memory. Devices supported include VCRs, CD Players, DVRs, TVs and Pay TV Decoders. In addition, the universal remote control features the IR codes for C-Bus devices. This means that this remote control can be used in conjunction with all C-Bus NEO Switches, Touch Screens and Scene Controller products.

The Universal Remote Control features a touch screen display with backlighting and soft keys for the menu and control options. Select from the 16 devices and their corresponding functions and commands at a push of a single button. In addition, the advanced macro function allows a chain of up to 60 commands to be activated with the touch of a single button.

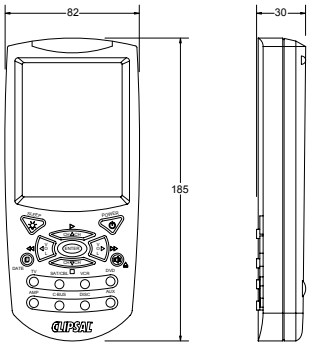
The Universal Remote Control provides a complete and centralised infrared remote control solution for control of audio visual and C-Bus devices in one attractive and simple-to-use device.

***5030URC***

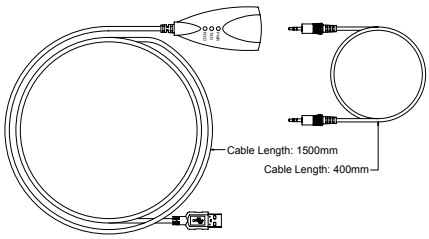
***5030URCCABLE***

## TECHNICAL INFORMATION

| | |
|---|---|
| Batteries | **4 x AAA Alkaline batteries** |
| Battery Life | **3 to 6 months** |
| Power Consumption | **LCD off : 50µA, LCD on : 300µA** |
| Operating Distance | **Approx. 9m** |
| Number of Devices | **16** |
| Soft Buttons/Device | **48 (2 pages of 24)** |
| Hard Buttons/Device | **7** |
| Backlighting | **Blue LED** |
| Learning Frequency | **10 to 455kHz and pulse** |
| Memory | **256KB flash memory** |
| C-Bus IR Codes | **5038TX and 5035TX** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |




***5030URC illustrated***




***5030URCCABLE illustrated***

## PRODUCT FEATURES

- Supports up to 16 infrared remote control codes.
- Features built-in C-Bus IR codes and menu option.
- Large touch screen display and quick control hard buttons.
- Audible beep confirmation on button presses.
- Battery low warning.
- Macro function supports up to 60 codes per macro command.
- Learning remote control.
- Features pre-programmed codes of popular models of AV equipment.
- Power save menu for extended battery life.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5030URC** | Universal Remote Control with LCD Touch Screen |
| **5030URCCABLE** | SPL USB Programming Cable |

# Monochrome Touch Screens

The C-Bus Monochrome Touch Screen provides elegant interface to the C-Bus control system. The touch screen interface is fully customisable to suit the user's requirements.

The touch screen supports user defined graphic images, text characters, including Chinese and other languages. The touch screen supports multiple page views, and the interface may be developed to navigate between pages to locate different operating options. The touch screen may be programmed to control lighting, dimming, water sprinklers and curtains.

The touch screen features an embedded scheduler, for event scheduling. In addition, the unit features an infrared receiver for remote activation of functions using a hand held remote control.

The touch screen requires a custom wall box, which is supplied separately.

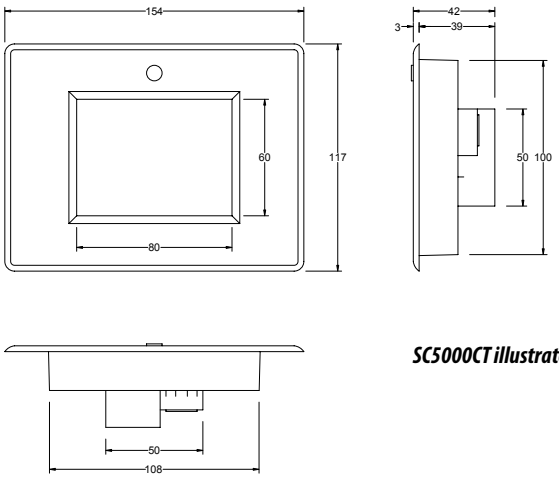
***5000CTD***

***SC5000CT***

***BB5000CT***

## TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 42mA** |
| Control Functions | **Switching, dimming, scene control and event scheduling** |
| Screen Type | **LCD, VGA, monochrome, backlit** |
| Resolution | **240 x 320 pixels** |
| Screen Size | **80mm x 62mm** |
| Real Time Clock | **365 day** |
| Backlighting | **Yes, programmable** |
| Warm Up Time | **60 seconds** |
| Network Burden | **Software selectable** |
| System Clock | **Software selectable** |
| C-Bus Connection | **Screw terminals** |
| Serial Connection | **RJ45 socket** |
| Surround Colours | **WE, SG, DS, CM, BR, BK and GB** |
| Operating Temperature Range | **0˚C to 35˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***SC5000CT illustrated***

## PRODUCT FEATURES

- Programmable using the C-Bus Touch Screen configuration software, via the serial connection or over C-Bus.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Powered from the C-Bus, does not require additional power supplies.
- Supports communication through C-Bus network bridges.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Desktop Stand** | |
| **5000CTD** | Touch Screen, Desktop Stand, Swivel Base |
| **Slimline Series** | |
| **SC5000CT** | Touch Screen, Monochrome - Less Wall Box |
| **Colour Selection: (WE)** White, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black | |
| **Flat Plate Series** | |
| **BS5000CT** | Touch Screen, Monochrome, Less Wall Box, Stainless Steel |
| **BB5000CT** | Touch Screen, Monochrome, Less Wall Box, Brass |
| **Accessories** | |
| **5035TX** | Remote Control, 5 Button |
| **5000CTWB** | Wall Box for Monochrome Touch Screen |
| **5050CTS** | Surround, NEO Style for Touch Screen |
| **Colour Selection: (WE)** White, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black, **(GB)** Battleship Grey | |

# Colour Touch Screens

The C-Bus Colour Touch Screen provides a simple, elegant and functional interface to the C-Bus management and control system. The touch screen provides a focal point to control and monitor the building's electrical systems, such as lighting, irrigation and entertainment services.

The touch screen is a wall mounted, touch sensitive, high resolution LCD screen that supports user defined graphics such as sliders, bitmaps and images and text characters, including English, Chinese, Arabic and other languages. The menus are fully customised at the time of installation, and may be changed at any time thereafter.

The touch screen incorporates an astronomical, real time clock for event scheduling and calendar functions, based on time of day, week, month or year. The colour touch screen features a logic engine module, that facilitates the development of logic based routines and scenarios, providing additional functionality of the installed system.

In addition, the colour touch screen is supplied with powerful configuration software that allows the installer to develop custom pages and menus to suit any installation of any size.

Available in either NEO or ULTI style, to complement the existing C-Bus wall switches. In addition, the touch screen features backlighting, that is controlled from a light level sensor located on the unit. The touch screen requires a custom wall box, which is supplied separately.

***5050CTC, 28***

***5080CTC, GF***

## TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15 - 36VDC @ 22mA** |
| External Power Supply | **5VDC @ 10A (supplied)** |
| Control Functions | **Switching, dimming, scene control, event scheduling or logic module** |
| Screen Type | **LCD active matrix, backlit** |
| Touch Overlay Type | **Resistive membrane** |
| Resolution | **VGA, 640 x 480 pixels** |
| Screen Size | **16.25cm (diagonal)** |
| Screen Viewing Area | **130mm(W) x 97mm(H)** |
| Horizontal Viewing Angles | **+/- 70˚** |
| Vertical Viewing Angles | **40˚ up and 70˚ down** |
| Luminance | **300 cd/m²** |
| Backlight | **Cold cathode with light sensor** |
| Memory | **256MB compact flash** |
| Real Time Clock | **365 day** |
| Warm Up Time | **60 seconds** |
| Network Burden | **Software selectable** |
| System Clock | **Software selectable** |
| C-Bus Connection | **2 x RJ45 sockets** |
| Ethernet Connection | **2 x RJ45 sockets, 10/100MHz** |
| Serial Connection | **DB9 plug** |
| Composite Video | **RCA socket** |
| Styles | **NEO (ABS), ULTI (Glass), Brass and Stainless Steel** |
| Dimensions | **248mm(W) x 175mm(H) x 60mm(D)** |
| Operating Temperature Range | **0˚C to 30˚C** |
| Operating Humidity Range | **10 - 95% RH, non-condensing** |

## PRODUCT FEATURES

- Programmable using the C-Bus Touch Screen configuration software, via the serial or Ethernet connection.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- Controls and monitors devices connected to the C-Bus, Ethernet or serial connections.
- Functions include; scheduling, scene control, irrigation control, logic and scenario management.
- Astronomical clock for scheduling and time management of events.
- Graphical user based drag and drop configuration software, plus free form logic programming language.
- Software interface design supports 101 levels of alpha blending.
- Animated buttons with up to 256 animation frames supported.
- Fully customized graphics, including bar graphs, sliders, percentage indicators, images, gauges and clocks, with any border and background style.
- Supports embedded web pages.
- Supports audio WAV files.
- Password access control.
- External power supply included.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

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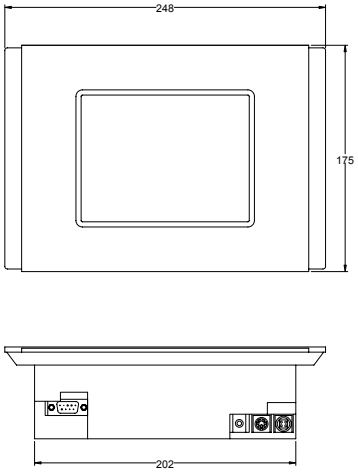
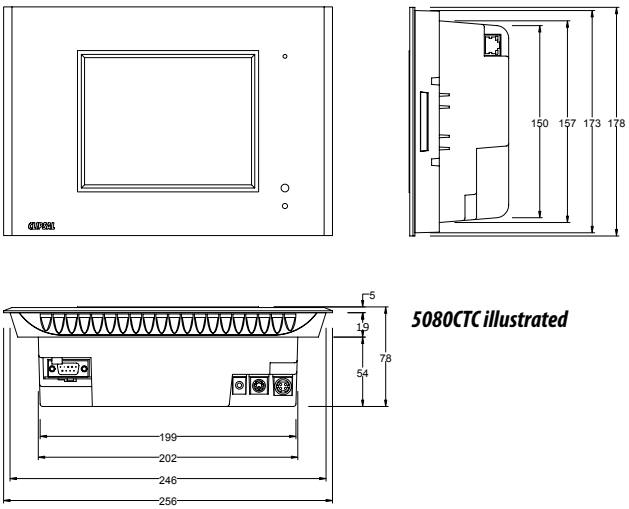
# Colour Touch Screens




*5050CTC illustrated*




*5080CTC illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **ULTI Family** | |
| **5080CTC** | Touch Screen, Colour, Less Wall Box and Power Supply, Glass Fascia |
| **Colour Selection: (GF)** White, **(3)** Cream, **(6)** Black, **(7)** Mid-Brown | |
| **NEO Family** | |
| **5050CTC** | Touch Screen, Colour, Less Wall Box and Power Supply |
| **Colour Selection: (28)** White Aluminium, **(BK)** Black, **(GB)** Grey Aluminium, **(WE)** White | |
| **Flat Plate Series** | |
| **BS5000CTC** | Touch Screen, Colour, Less Wall Box and Power Supply, Stainless Steel |
| **BB5000CTC** | Touch Screen, Colour, Less Wall Box and Power Supply, Brass |

# Accessories for Colour Touch Screen

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Wall Box and Nail Bracket** | |
| **5000CTCWB** | Wall Box for Colour Touch Screen |
| **5000CTCPS** | Power Supply, 5VDC @ 10A |
| **Power Supply** | |
| **5000CTCNA** | Nail Bracket for Colour Touch Screen |
| **Fascia** | |
| **5080CTCF** | Fascia, Glass |
| **Colour Selection: (GF)** White, **(3)** Cream, **(6)** Black, **(7)** Mid-Brown | |
| **5050CTCF** | Fascia,NEO |
| **Colour Selection: (28)** White & Brushed Aluminium, **(BK)** Black, **(GB)** Grey & Brushed Aluminium, **(WE)** White | |

# Scene Controllers

The Clipsal C-Bus Scene Controller Key Inputs Units are surface switches designed to control lighting and other electrical services connected to a C-Bus Network. These units are programmed as scene switches and up to 4 scenes may be programmed on a single key input unit.

The scene is issued to the network each time the key is pressed. Each scene may have a maximum of 10 group addresses associated with that scene, and up to 40 group addresses may be associated with single key input unit.

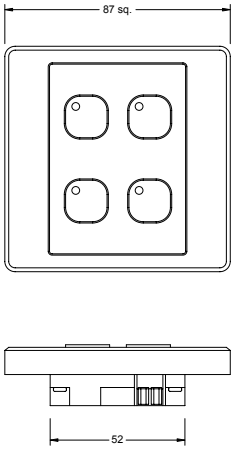
Key input units communicate with all other units and obtain power via a single twisted pair of connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

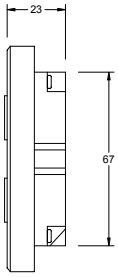
***E5034NS, WE***

***5034NS, WE***

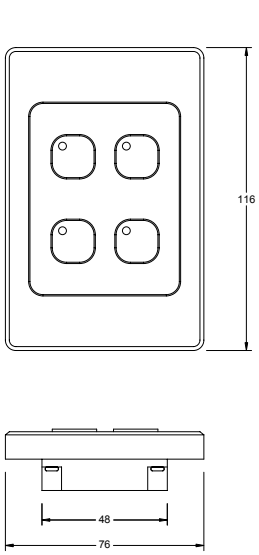
## TECHNICAL INFORMATION

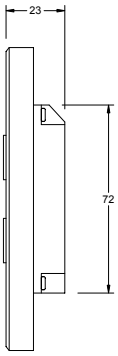
| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| Maximum Number of Units on a Single C-Bus Network | **100** |
| Status Indicators | **Red LEDs (illuminate during key press)** |
| Maximum Number of Group Addresses per Scene | **10** |
| Maximum Number of Scenes per Scene Controller Key Switch | **4** |
| Mounting Centres | **84mm (AUS/US) and 60.3mm (UK)** |
| Standard Colours | **WE, SG, DS, CM. BR and BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




***E5034NS illustrated***




***5034NS illustrated***

## PRODUCT FEATURES

- Programmable using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Australian/US Standard** | |
| **2000 Series** | |
| **5034NS** | 4-Key Scene Controller |
| **C2000 Classic Series** | |
| **C5034NS** | 4-Key Scene Controller |
| **SC2000 Slimline Series** | |
| **SC5034NS** | 4-Key Scene Controller |
| **SL2000 Eclipse Series** | |
| **SL5034NS** | 4-Key Scene Controller |
| **British Standard** | |
| **E5034NS** | 4-Key Scene Conroller |

# Scene Master Scene Controllers

The Clipsal C-Bus Scene Master Unit is learn enabled, surface mount unit and provides an attractive and elegant interface to create scenes on C-Bus. The scene master replaces multiple wall-mounted switches and is suitable for residential and commercial installations.

The scene master supports 5 scenes including a master off. The scene master supports a total of 33 group addresses across all 5 scenes, giving this unit unparalleled flexibility. The unit also has the ability to learn scenes, so once installed the user can change the scene setup, including fade rate, without the need for configuration software.

The scene master features illuminated light bars, which display the lighting level of the controlled lights by the number of segments lit on the light bars. Pressing one of the keys on the unit or using the 5-button remote control triggers the C-Bus scene.

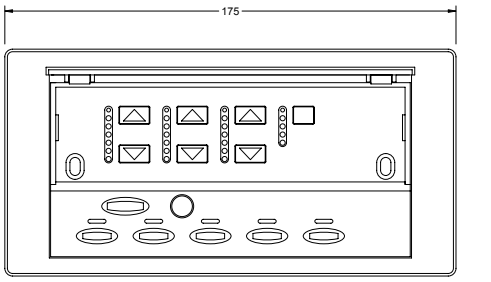
The scene master communicates with all other units and obtains power via a single twisted pair of connections to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

*5035NIRSL, WE*

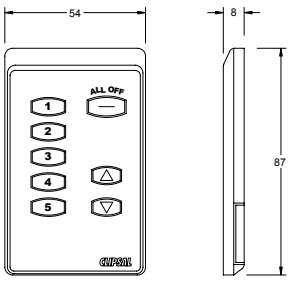
*5035TX*

## TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 36mA** |
| Control Functions | **5 Preset scenes and Master off** |
| Status Indicators | **3 x LED bars** |
| Maximum Number of Group Addresses per Unit | **33** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




*5035NIRSL illustrated*




*5035TX illustrated*

## PRODUCT FEATURES

- Programmable using learn mode or the C-Bus Toolkit Software.
- Mounting bracket compatible with 60.3 and 84mm mounting centres.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5035NIRSL, WE** | 5-Key Scene Controller with IR, White Cover |
| **5035NIRSLTR, WE** | 5-Key Scene Controller with IR, White Cover with Smoked Transparent Cover |
| **5035NIRSLTR, GB** | 5-Key Scene Controller with IR, Grey and Silver with Smoked Transparent Cover |
| **5035TX** | Remote Control, 5 Button |

# Professional Series Dimmer Range
## 4 Channel Dimmer 5A, Learn Enabled

The C-Bus 4 Channel Dimmer Units are panel mount units employing leading edge phase control circuitry, with soft start for dimming control. These dimmer units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

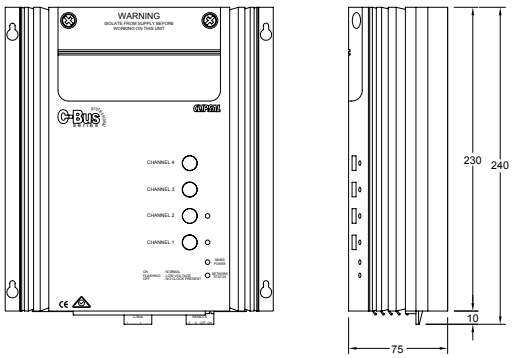
Each dimmer channel is rated at 5 Amps and is suitable for incandescent and low voltage lighting using magnetic and leading edge compatible transformers. Software algorithms found in the units, continuously monitor the incoming line voltage and automatically compensate for any changes in the voltage level by adjusting the output drive to the load. In addition frequency-tracking algorithms ensure flicker free operation and smooth dimming control.

The dimmer is constructed from an oversized, rugged, anodized aluminum heat sink to dissipate any heat build-up in the unit. In addition, the dimmers employ thermal overload and overcurrent protection, to protect the dimmer and load in case of a fault condition. The dimmer units source 60mA to the C-Bus network, which means for small networks additional C-Bus power supplies are not required.

*L5104D5*

### TECHNICAL INFORMATION

| Catalogue Number | L5104D5 | LE5104TD5 |
|---|---|---|
| Line Supply Voltage | 220-240VAC | 110-120VAC |
| Supply Frequency | 47-53Hz and 57-63Hz | |
| Frequency Drift | 3Hz/minute (maximum) | |
| Frequency Step Change | 0.1Hz (maximum) | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | |
| Load Rating per Channel | 5A | |
| Overcurrent Shutdown | 6A | |
| Minimum Load | 100W per channel | |
| Current Sensing | 5 - 100% of full rated load, 5% accuracy | |
| Control Range | 2 - 98% | |
| Compatible Loads | Incandescent and low voltage lighting. Suitable for use with leading edge compatible electronic transformers. | |
| C-Bus Source Current | 60mA | |
| Maximum Number of Units on a Single C-Bus Network | 30 | |
| Status Indicators | Channel Status (4), Unit and C-Bus | |
| Warm Up Time | 5 seconds | |
| Network Clock | Software selectable | |
| Network Burden | Software selectable | |
| C-Bus Termination | 4 way removable screw terminal | |
| Load Termination | 2 x 2.5mm² or 1 x 4mm² | |
| Auxiliary Contacts | Normally open, 2.5A, 240VAC voltage free, resistive | |
| Operating Temperature Range | 0˚C to 45˚C | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | |




*L5104D5 illustrated*

### PRODUCT FEATURES

- Provides 4 x 5A channels of dimming control.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (max/min) programmable using the C-Bus Toolkit Software.
- Employs frequency-tracking algorithms for smooth flicker free operation.
- Soft start on power up, for increased lamp life.
- Features auxiliary contacts which close on thermal overload or overcurrent condition.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **L5104D5** | 4 Channel Dimmer, 5A per Channel, 220/240VAC, 50/60Hz, C-Bus 60mA |
| **LE5104TD5** | 4 Channel Dimmer, 5A per Channel, 110/120VAC, 50/60Hz, C-Bus 60mA |
| **Accessory** | |
| **5100NLA** | Cold Cathode/Neon Lighting Interface Module |

# Professional Series Dimmer Range
## 2 Channel Dimmer 10A, Learn Enabled

The C-Bus 2 Channel Dimmer Units are panel mount units employing leading edge phase control circuitry, with soft start for dimming control. These dimmer units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

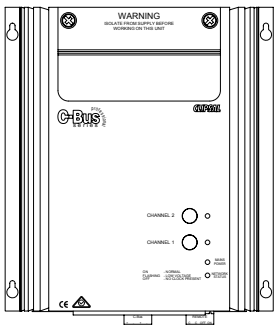
Each dimmer channel is rated at 10 Amps and is suitable for incandescent and low voltage lighting using magnetic and leading edge compatible transformers. Software algorithms found in the units, continuously monitor the incoming line voltage and automatically compensate for any changes in the voltage level by adjusting the output drive to the load. In addition frequency-tracking algorithms ensure flicker free operation and smooth dimming control.

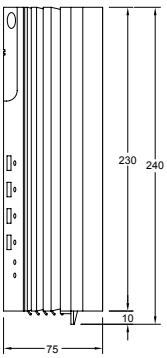
The dimmer is constructed from an oversized, rugged, anodized aluminum heat sink to dissipate any heat build-up in the unit. In addition the dimmers employ thermal overload and overcurrent protection, to protect the dimmer and load in case of a fault condition. The dimmer units source 60mA to the C-Bus network, which means for small networks additional C-Bus power supplies are not required.

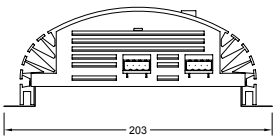
*L5102D10*

### TECHNICAL INFORMATION

| Catalogue Number | L5102D10 | LE5102TD10 |
|---|---|---|
| Line Supply Voltage | 220-240VAC | 110-120VAC |
| Supply Frequency | 47-53Hz and 57-63Hz | |
| Frequency Drift | 3Hz/minute (maximum) | |
| Frequency Step Change | 0.1Hz (maximum) | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | |
| Load Rating per Channel | 10A | |
| Overcurrent Shutdown | 12A | |
| Minimum Load | 100W per channel | |
| Current Sensing | 5-100% of full rated load, 5% accuracy | |
| Control Range | 2 - 98% | |
| Compatible Loads | Incandescent and low voltage lighting. Suitable for use with leading edge compatible electronic transformers. | |
| C-Bus Source Current | 60mA | |
| Maximum Number of Units on a Single C-Bus Network | 30 | |
| Status Indicators | Channel Status (2), Unit and C-Bus | |
| Warm Up Time | 5 seconds | |
| Network Clock | Software selectable | |
| Network Burden | Software selectable | |
| C-Bus Termination | 4 way removable screw terminal | |
| Load Termination | 2 x 2.5mm² or 1 x 4mm² | |
| Auxiliary Contacts | Normally open, 2.5A, 240VAC, voltage free, resistive | |
| Operating Temperature Range | 0˚C to 45˚C | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | |




*L5102D10 illustrated*

### PRODUCT FEATURES

- Provides 2 x 10A channels of dimming control.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (max/min) programmable using the C-Bus Toolkit Software.
- Employs frequency-tracking algorithms for smooth flicker free operation.
- Soft start on power up, for increased lamp life.
- Features auxiliary contacts which close on thermal overload or overcurrent condition.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **L5102D10** | 2 Channel Dimmer, 10A per Channel, 220/240VAC, 50/60Hz, C-Bus 60mA |
| **LE5102TD10** | 2 Channel Dimmer, 10A per Channel, 110/120VAC, 50/60Hz, C-Bus 60mA |
| **Accessory** | |
| **5100NLA** | Cold Cathode/Neon Lighting Interface Module |

# Professional Series Dimmer Range
## 1 Channel Dimmer 20A, Learn Enabled

The C-Bus 1 Channel Dimmer Units are panel mount units employing leading edge phase control circuitry, with soft start for dimming control. These dimmer units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

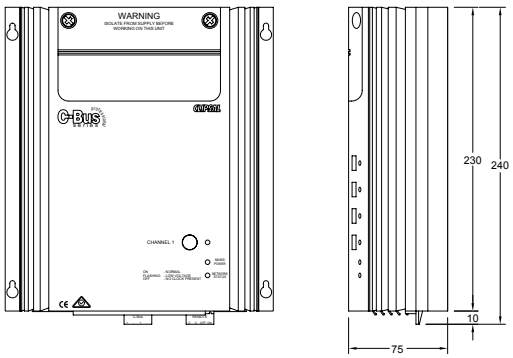
Each dimmer channel is rated at 20 Amps and is suitable for incandescent and low voltage lighting using magnetic and leading edge compatible transformers. Software algorithms found in the units, continuously monitor the incoming line voltage and automatically compensate for any changes in the voltage level by adjusting the output drive to the load. In addition frequency-tracking algorithms ensure flicker free operation and smooth dimming control.

The dimmer is constructed from an oversized, rugged, anodized aluminum heat sink to dissipate any heat build-up in the unit. In addition, the dimmers employ thermal overload and overcurrent protection, to protect the dimmer and load in case of a fault condition. The dimmer units source 60mA to the C-Bus network, which means for small networks additional C-Bus power supplies are not required.

*L5101D20*

### TECHNICAL INFORMATION

| Catalogue Number | L5101D20 | LE5101TD20 |
|---|---|---|
| Line Supply Voltage | 220-240VAC | 110-120VAC |
| Supply Frequency | 47-53Hz and 57-63Hz | |
| Frequency Drift | 3Hz/minute (maximum) | |
| Frequency Step Change | 0.1Hz (maximum) | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | |
| Load Rating per Channel | 20A | |
| Overcurrent Shutdown | 24A | |
| Minimum Load | 100W per channel | |
| Current Sensing | 5-100% of full rated load, 5% accuracy | |
| Control Range | 2 - 98% | |
| Compatible Loads | Incandescent and low voltage lighting. Suitable for use with leading edge compatible electronic transformers. | |
| C-Bus Source Current | 60mA | |
| Maximum Number of Units on a Single C-Bus Network | 30 | |
| Status Indicators | Channel Status (1), Unit and C-Bus | |
| Warm Up Time | 5 seconds | |
| Network Clock | Software selectable | |
| Network Burden | Software selectable | |
| C-Bus Termination | 4 way removable screw terminal | |
| Load Termination | 2 x 2.5mm² or 1 x 4mm² | |
| Auxiliary Contacts | Normally open, 2.5A, 240VAC, voltage free, resistive | |
| Operating Temperature Range | 0˚C to 45˚C | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | |




*L5101D20 illustrated*

### PRODUCT FEATURES

- Provides 1 x 20A channel of dimming control.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (max/min) programmable using the C-Bus Toolkit Software.
- Employs frequency-tracking algorithms for smooth flicker free operation.
- Soft start on power up, for increased lamp life.
- Features auxiliary contacts which close on thermal over load or overcurrent condition.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **L5101D20** | 1 Channel Dimmer, 20 per Channel 220/240VAC, 20A, 50/60Hz, C-Bus 60mA |
| **LE5101TD20** | 1 Channel Dimmer, 20 per Channel 110/120VAC, 20A, 50/60Hz, C-Bus 60mA |
| **Accessory** | |
| **5100NLA** | Cold Cathode/Neon Lighting Interfcae Module |

# High Power Architectural Series Dimmer Range
## Learn Enabled

The C-Bus high power, multi channel dimmers are designed for architectural lighting applications. The dimmers feature Advanced Phase Control technology, a patented process that achieves high switching efficiency, low heat dissipation and low losses which means the dimmers are smaller, occupy less volume for the same power output.

The dimmers feature a Digital Signal Processor (DSP) for very fast processing and unsurpassed performance. The DSP is programmed to achieve high performance including frequency tracking, over voltage limiting, programmable dimming curves for specific and specialist lamp types. The dimmers also feature digital triac firing, for precise control and 13-bit fade resolution.

The dimmers feature DMX512 and C-Bu s interfaces and control of the dimmers may be from either a C-Bus or DMX station.

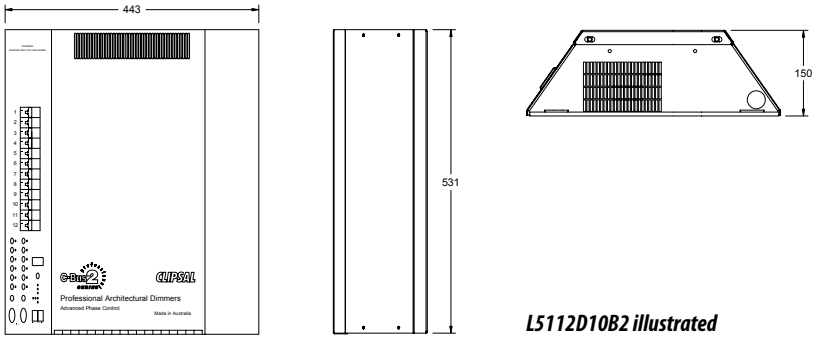
*L5112D10B2*

### TECHNICAL INFORMATION

| Catalogue Number | L5112D10B2 | L5112D12B2 | L5112D16B2 |
|---|---|---|---|
| Line Supply Voltage | 180-265VAC | | |
| Supply Frequency | 40-80Hz | | |
| Operation | Single or three phase 4-Wire with neutral | | |
| Fade Resolution | 13 bit | | |
| C-Bus Supply Voltage | 15-36VDC @ 22mA | | |
| Load Rating per Channel | 10A | 12A | 16A |
| Minimum Load | 0W per channel | | |
| MCCB Fault Current | 6kVA | | |
| Temperature Control | Temperature controlled fans | | |
| Coil Rise Time | 200µ/sec | | |
| Compatible Loads | Incandescent, cold cathode (non-capacitive input) and low voltage lighting. Suitable for use with leading edge compatible electronic transformers. | | |
| Switch Technology | Advanced phase control (patented) | | |
| Switching Efficiency | 99.8% | | |
| Maximum Number of Units on a Single C-Bus Network | 30 | | |
| Control Interfaces | DMX512 and C-Bus | | |
| Status Indicators | Channel Status (12), DMX, Line Voltage, Unit and C-Bus | | |
| Warm Up Time | 5 seconds | | |
| Network Clock | Software selectable | | |
| Network Burden | Software selectable | | |
| C-Bus Termination | 2 x RJ45 sockets | | |
| Load Termination | 2 x 2.5mm² or 1 x 4mm² | | |
| Weight | 18kgs | | |
| Operating Temperature Range | 0˚C to 40˚C | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | |

### PRODUCT FEATURES

- Features 12 channels of 10A, 12A or 16A.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (max/min) programmable using the C-Bus Toolkit Software.
- Employs frequency-tracking algorithms for smooth flicker free operation.
- Soft start on power up, for increased lamp life.
- Available with 1P or 1P + 1N breaker version for European markets.
- RCM (Australia/New Zealand), CE (European Community) compliant.




*L5112D10B2 illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5112D10B2 | 12 Channel Dimmer, 220/240VAC,10A per Channel, MCCB Protection 40-80Hz, APC Technology |
| L5112D12B2 | 12 Channel Dimmer, 220/240VAC,12A per Channel, MCCB Protection 40-80Hz, APC Technology |
| L5112D16B2 | 12 Channel Dimmer, 220/240VAC,16A per Channel, MCCB Protection 40-80Hz, APC Technology |
| L5112D20B2 | 12 Channel Dimmer, 220/240VAC, 20A per Channel, MCCB Protection 40-80Hz, APC Technology |
| L5112D1/B2 | 12 Channel Dimmer, 250VAC,10A per Channel, MCCB Protection 40-80Hz, APC Technology |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| Accessories | |
| 5150SMB | Shallow Mounting Bracket |
| 5150DMB | Deep Mounting Bracket |
| 5150DMX | DMX Connector Kit |

# 4 Channel Dimmer Range
## Learn Enabled

The C-Bus 4 Channel Dimmer Units are DIN rail mount units employing leading edge phase control circuitry for dimming control. These dimmer units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

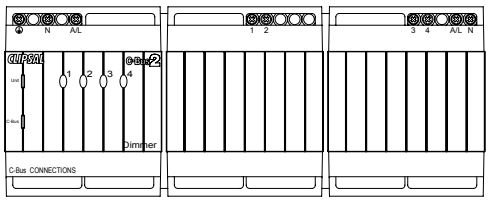
Each dimmer channel is rated at 2 Amps and is suitable for incandescent and low voltage lighting using magnetic and leading edge compatible transformers. The dimmer output is controllable over the range of 2-98%, while frequency tracking algorithms ensure flicker-free operation and smooth dimming control.

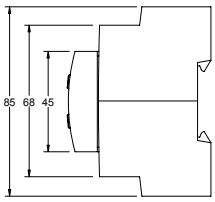
The dimmer units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

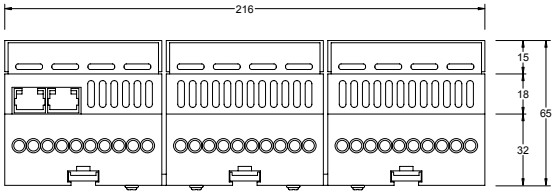
*L5504D2A*

### TECHNICAL INFORMATION

| Catalogue Number | L5504D2A | L5504D2AP | LE5504TD2A | LE5504TD2AP | L5504D2U | L5504D2UP |
|---|---|---|---|---|---|---|
| Line Supply Voltage | 220-240VAC | | 110-120VAC | | 220 - 240VAC | |
| Supply Frequency | 47-53Hz and 57-63Hz | | | | 47 - 53Hz | |
| Frequency Drift | 3Hz/minute (maximum) | | | | / | |
| Frequency Step Change | 0.1Hz (maximum) | | | | / | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | | | | 15-36VDC @ 18mA | |
| Load Rating per Channel | 2A | | | | 2A | |
| Minimum Load | 15W per channel | | | | 20W per channel | 12W per channel |
| Control Range | 2 - 98% | | | | / | |
| Compatible Loads | Incandescent and low voltage lighting. Suitable for use with leading edge compatible electronic transformers. | | | | | |
| C-Bus Source Current | 200mA | 0mA | 200mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 10 | 100 | 10 | 100 | 10 | 100 |
| Status Indicators | Channel Status (4), Unit and C-Bus | | | | | |
| Warm Up Time | 5 seconds | | | | | |
| Network Clock | Software selectable | | | | | |
| Network Burden | Software selectable | | | | | |
| C-Bus Termination | 2 x RJ45 Socket | | | | | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | | | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | | | 10 - 95% RH | |




*L5504D2A illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5504D2A | 4 Channel Dimmer, 2A per Channel, 220/240VAC, 50/60Hz, C-Bus 200mA |
| L5504D2AP | 4 Channel Dimmer, 2A per Channel, 220/240VAC, 50/60Hz |
| LE5504TD2A | 4 Channel Dimmer, 2A per Channel, 110/120VAC, 50/60Hz, C-Bus 200mA |
| LE5504TD2AP | 4 Channel Dimmer, 2A per Channel, 110/120VAC, 50/60Hz |
| L5504D2U | 4 Channel Universal Dimmer, 2A per Channel, 220/240VAC, 50/60Hz, C-Bus 200mA, with power |
| L5504D2UP | 4 Channel Universal Dimmer, 2A per Channel, 220/240VAC, 50/60Hz, C-Bus 200mA, without power |
| L5504D2AU | 4 Channel Universal Dimmer, 2A per Channel, 220/240VAC, 50/60Hz |
| LE5504TD2U | 4 Channel Universal Dimmer, 2A per Channel, 110/120VAC, 50/60Hz, C-Bus 200mA |
| LE5504TD2AU | 4 Channel Universal Dimmer, 2A per Channel, 110/120VAC, 50/60Hz |

# 8 Channel Dimmer Range
## Learn Enabled

The C-Bus 8 Channel Dimmer Units are DIN rail mount units employing leading edge phase control circuitry for dimming control. These dimmer units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

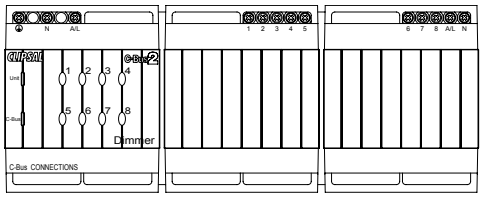
Each dimmer channel is rated at 1 Amp and is suitable for incandescent and low voltage lighting using magnetic and leading edge compatible transformers. The dimmer output is controllable over the range of 2-98%, while frequency tracking algorithms ensure flicker-free operation and smooth dimming control.

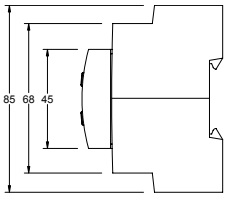
The dimmer units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

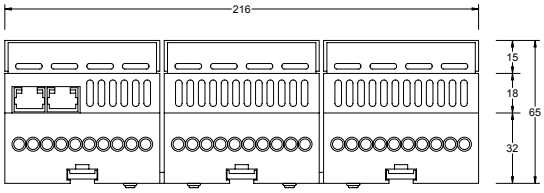
*L5508D1A*

### TECHNICAL INFORMATION

| Catalogue Number | L5508D1A | L5508D1AP | LE5508TD1A | LE5508TD1AP |
|---|---|---|---|---|
| Line Supply Voltage | 220-240VAC | | 110-120VAC | |
| Supply Frequency | 47-53Hz and 57-63Hz | | | |
| Frequency Drift | 3Hz/minute (maximum) | | | |
| Frequency Step Change | 0.1Hz (maximum) | | | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | | | |
| Load Rating per Channel | 1A | | | |
| Minimum Load | 15W per channel | | | |
| Control Range | 2 - 98% | | | |
| Compatible Loads | Incandescent and low voltage lighting. Suitable for use with leading edge compatible electronic transformers. | | | |
| C-Bus Source Current | 200mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 10 | 100 | 10 | 100 |
| Status Indicators | Channel Status (8), Unit and C-Bus | | | |
| Warm Up Time | 5 seconds | | | |
| Network Clock | Software selectable | | | |
| Network Burden | Software selectable | | | |
| C-Bus Termination | 2 x RJ45 Socket | | | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | | |




*L5508D1A illustrated*

### PRODUCT FEATURES

- Provides 8 x 1A channels of dimming control.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (max/min) programmable using the C-Bus Toolkit Software.
- Employs frequency-tracking algorithms for smooth flicker free operation.
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **L5508D1A** | 8 Channel Dimmer, 1A per Channel, 220/240VAC, 50/60Hz, C-Bus 200mA |
| **L5508D1AP** | 8 Channel Dimmer, 1A per Channel, 220/240VAC, 50/60Hz |

# 8 Channel DSI Gateway Range
## Learn Enabled

The C-Bus 8 Channel DSI Gateway Units are DIN rail mount units designed to control Atco-Tridonic brand dimmable electronic ballasts featuring the digital serial interface. These DSI units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

Each DSI channel can drive up to 100 DSI ballasts allowing a total of 800 DSI ballasts to be connected to a single C-Bus/DSI gateway module.

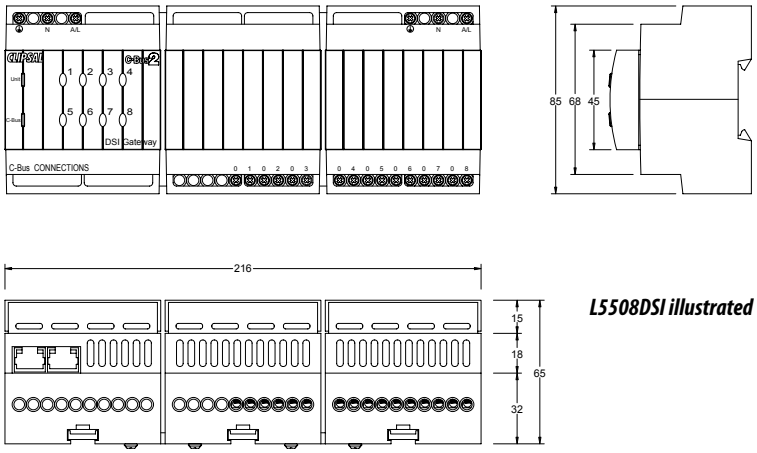
The DSI gateway is capable of detecting faulty lamps connected to its terminals and issuing a message onto the C-Bus network. These messages can be read by C-Gate server application, when integrated as part of an overall building management system, lamp status may be reported to a central location.

The DSI units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

*L5508DSI*

### TECHNICAL INFORMATION

| Catalogue Number | L5508DSI | L5508DSIP | LE5508TDSI | LE5508TDSIP |
|---|---|---|---|---|
| Line Supply Voltage | 220-240VAC | | 110-120VAC | |
| Supply Frequency | 47-53Hz and 57-63Hz | | | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | | | |
| Load Rating per Channel | 200mA (100 ballasts) | | | |
| Minimum Load | 15W per channel | | | |
| Control Range | 0 - 100% | | | |
| Compatible Loads | Tridonic DSI dimmable ballasts or equivalent | | | |
| Channel Output Voltage | 0.0 - 0.8V (low) to 11.0 - 13.0V (high) | | | |
| C-Bus Source Current | 200mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 10 | 100 | 10 | 100 |
| Status Indicators | Channel Status (8), Unit and C-Bus | | | |
| Warm Up Time | 5 seconds | | | |
| Network Clock | Software selectable | | | |
| Network Burden | Software selectable | | | |
| C-Bus Termination | 2 x RJ45 Socket | | | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | | |




*L5508DSI illustrated*

### PRODUCT FEATURES

- Provides 8 channels of DSI dimming control.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (max/min) programmable using the C-Bus Toolkit Software.
- Monitors and reports lamp state.
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5508DSI | 8 Channel Dimmer for DSI Electronic Ballasts, 220/240VAC, 20A, 50/60Hz, C-Bus 200mA |
| L5508DSIP | 8 Channel Dimmer for DSI Electronic Ballasts, 220/240VAC, 20A, 50/60Hz |
| LE5508TDSI | 8 Channel Dimmer for DSI Electronic Ballasts, 110/120VAC, 20A, 50/60Hz, C-Bus 200mA |
| LE5508TDSIP | 8 Channel Dimmer for DSI Electronic Ballasts, 110/120VAC, 20A, 50/60Hz |

# 2 Channel DALI Gateway Range
## Learn Enabled

The C-Bus 2 Channel DALI Gateway Units are DIN rail mount units designed to control DALI compatible dimmable electronic ballasts and low voltage transformers.

Each DALI channel can drive up to 64 DALI devices allowing a total of 128 DALI devices to be connected to a single C-Bus/DALI gateway module.

With the DALI gateway each of the DALI devices are individually addressable. The DALI gateway also supports 16 groups of devices and 16 scenes, as well as global control over all devices.

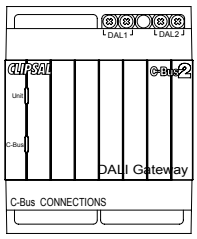
The DALI gateway provides two-way communications between C-Bus and DALI devices, in this way C-Bus messages may be routed to DALI devices and visa versa. In addition, the DALI gateway constantly monitors the state of lamps and DALI devices and reports their state to the C-Bus network. These messages can be read by C-Gate server application, when integrated as part of an overall building management system, device status may be reported to a central location.

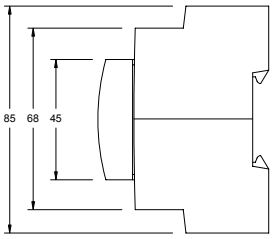
The DALI units are available as passive units only, hence do not source current to the C-Bus network.

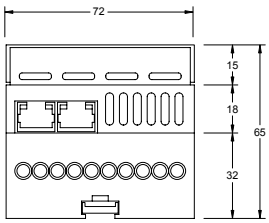
***5502DAL***

### TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5502DAL** |
| C-Bus Supply Voltage | **15-36VDC @ 32mA** |
| Load Rating per Channel | **64 DALI devices** |
| Control Range | **0 - 100%** |
| Compatible Loads | **Digital Addressable Lighting Interface (DALI) electronic ballasts and low voltage transformers** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Status Indicators | **Unit and C-Bus** |
| Warm Up Time | **5 seconds** |
| Network Clock | **Software selectable** |
| Network Burden | **Software selectable** |
| C-Bus Termination | **2 x RJ45 Socket** |
| Load Termination | **2 x 1.5mm² or 1 x 2.5mm²** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |




### PRODUCT FEATURES

- Provides 2 channels of DALI interface, each channel can connect to 64 DALI devices.
- Hard coded mapping between C-Bus group addresses and DALI device addresses.
- Stored variables located in non-volatile memory and are retained in case of loss of C-Bus or DALI power.
- Monitors and reports lamp and DALI device states.
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size.
- Designed to fit into standard electrical switchboards.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5502DAL** | 2 Channel DALI Gateway |

# 4 Channel Analogue Output Range
## Learn Enabled

The C-Bus 4 Channel Analogue Output Units are DIN rail mount units designed to control 0 - 10V and 1 - 10V compatible dimmable electronic ballasts used in the lighting industry.

These analogue output units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

Each channel is capable of sourcing or sinking current and the number of ballasts that may be connected to the analogue output unit is a function of the current drain of that particular ballast.

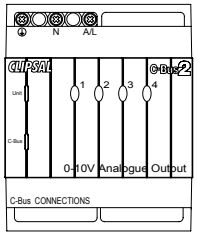
The analogue control signal typically regulates lighting output over the range of 3 - 100%. The dimming transitions are smooth and flicker free.

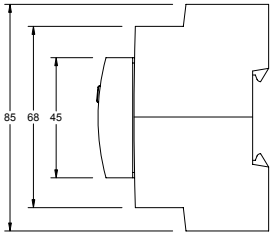
The analogue output units are available as passive models only, hence do not source current to the C-Bus network.

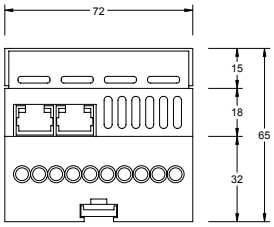
***L5504AMP***

### TECHNICAL INFORMATION

| Catalogue Number | **L5504AMP** | **LE5504TAMP** |
|---|---|---|
| Line Supply Voltage | **220-240VAC** | **110-120VAC** |
| Supply Frequency | **47-53Hz and 57-63Hz** | |
| C-Bus Supply Voltage | **15-36VDC @ 0mA** | |
| Output Control Range | **0-10VDC** | |
| Control Range | **3 - 100%** | |
| Source Current | **2.5mA** | |
| Sink Current | **15mA at Vout = 0V, 8.0mA at Vout = 10V i.e. I = 15 - (0.7 Vout) mA** | |
| Maximum Number of Units on Single C-Bus Network | **100** | |
| Status Indicators | **Channel Status (4), Unit and C-Bus** | |
| Warm Up Time | **5 seconds** | |
| Network Clock | **Software selectable** | |
| Network Burden | **Software selectable** | |
| C-Bus Termination | **2 x RJ45 Socket** | |
| Load Termination | **2 x 1.5mm² or 1 x 2.5mm²** | |
| Operating Temperature Range | **0˚C to 45˚C** | |
| Operating Humidity Range | **0 - 95% RH, non-condensing** | |




***L5504AMP illustrated***

### PRODUCT FEATURES

- Provides 4 channels of 0 - 10V dimming control.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (max/min) programmable using the C-Bus Toolkit Software.
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **L5504AMP** | 4 Channel Analouge Output, 0-10V, 220/240VAC, 50/60Hz |
| **LE5504TAMP** | 4 Channel Analouge Output, 0-10V, 110/120VAC, 50/60Hz |

# 4 Channel 10A Relay Range
## Learn Enabled

The C-Bus 4 Channel Relay Units are DIN rail mount units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

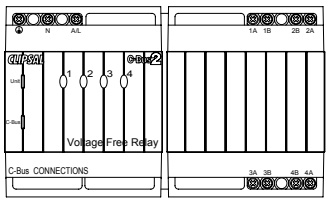
Load control is provided by a special dual contact relay designed or extreme long life with lighting loads, even with power factor corrected fluorescent lamps. One contact is tungsten designed to withstand high in rush currents and arcing when opening and the other contact is silver alloy for steady state current operation.

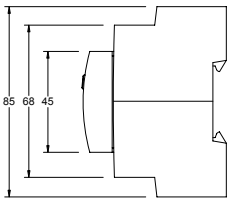
The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

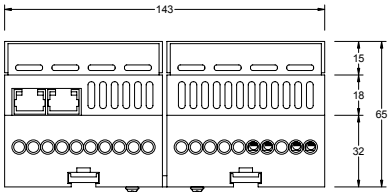
*L5504RVF*

### TECHNICAL INFORMATION

| Catalogue Number | L5504RVF | L5504RVFP | LE5504TRVF | LE5504TRVFP |
|---|---|---|---|---|
| Line Supply Voltage | 220-240VAC | | 110-120VAC | |
| Supply Frequency | 47-53Hz and 57-63Hz | | | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | | | |
| Load Rating per Channel | 10A | | | |
| Contact Type | Voltage free, normally open, magnetically latched | | | |
| Switch Operations | Greater than 60,000 operations | | | |
| In-Rush Current | 120A (20msec) | | | |
| Compatible Loads | Resistive, inductive, incandescent and fluorescent | | | |
| C-Bus Source Current | 200mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 10 | 100 | 10 | 100 |
| Status Indicators | Channel Status (4), Unit and C-Bus | | | |
| Warm Up Time | 5 seconds | | | |
| Network Clock | Software selectable | | | |
| Network Burden | Software selectable | | | |
| C-Bus Termination | 2 x RJ45 Socket | | | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | | |




*L5504RVF illustrated*

### PRODUCT FEATURES

- Provides 4 x 10A channels of switching output.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (and/or) programmable using the C-Bus Toolkit Software.
- Features magnetically latched relays that hold state in case of loss of C-Bus communications.
- Designed to fit standard 35mm top hat DIN rail, measures just 8M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia / New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5504RVF | 4 Channel Relay, 10A per Channel, 220/240VAC, 50/60Hz, C-Bus 200mA |
| L5504RVFP | 4 Channel Relay, 10A per Channel, 220/240VAC, 50/60Hz |
| LE5504TRVF | 4 Channel Relay, 10A per Channel, 110/120VAC, 50/60Hz, C-Bus 200mA |
| LE5504TRVFP | 4 Channel Relay, 10A per Channel, 110/120VAC, 50/60H |

# 8 Channel 10A Relay Range
## Learn Enabled

The C-Bus 8 Channel Relay Units are DIN rail mount units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

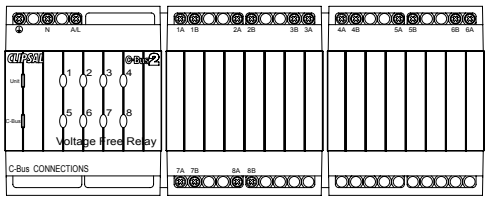
Load control is provided by a special dual contact relay designed or extreme long life with lighting loads, even with power factor corrected fluorescent lamps. One contact is tungsten designed to withstand high in-rush currents and arcing when opening and the other contact is silver alloy for steady state current operation.

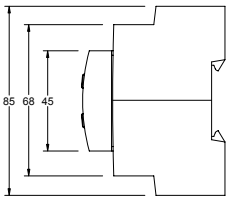
The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

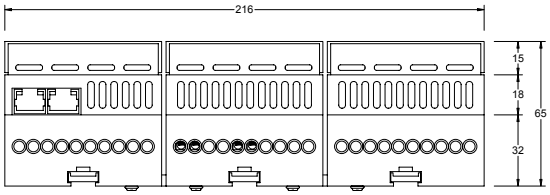
*L5508RVF*

### TECHNICAL INFORMATION

| Catalogue Number | L5508RVF | L5508RVFP | LE5508TRVF | LE5508TRVFP |
|---|---|---|---|---|
| Line Supply Voltage | 220-240VAC | | 110-120VAC | |
| Supply Frequency | 47-53Hz and 57-63Hz | | | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | | | |
| Load Rating per Channel | 10A | | | |
| Contact Type | Voltage free, normally open, magnetically latched | | | |
| Switch Operations | Greater than 60,000 operations | | | |
| In-Rush Current | 120A (20msec) | | | |
| Compatible Loads | Resistive, inductive, incandescent and fluorescent | | | |
| C-Bus Source Current | 200mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 10 | 100 | 10 | 100 |
| Status Indicators | Channel Status (8), Unit and C-Bus | | | |
| Warm Up Time | 5 seconds | | | |
| Network Clock | Software selectable | | | |
| Network Burden | Software selectable | | | |
| C-Bus Termination | 2 x RJ45 Socket | | | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | | |




*L5508RVF illustrated*

### PRODUCT FEATURES

- Provides 8 x 10A channels of switching output.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (and/or) programmable using the C-Bus Toolkit Software.
- Features magnetically latched relays that hold state in case of loss of C-Bus communications.
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5508RVF | 8 Channel Relay, 10A per Channel, 220/240VAC, 50/60Hz, C-Bus 200mA |
| L5508RVFP | 8 Channel Relay, 10A per Channel, 220/240VAC, 50/60Hz |
| LE5508TRVF | 8 Channel Relay, 10A per Channel, 110/120VAC, 50/60Hz, C-Bus 200mA |
| LE5508TRVFP | 8 Channel Relay, 10A per Channel, 110/120VAC, 50/60Hz |

# 12 Channel 10A Relay Range
## Learn Enabled

The C-Bus 12 Channel Relay Units are DIN rail mount units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

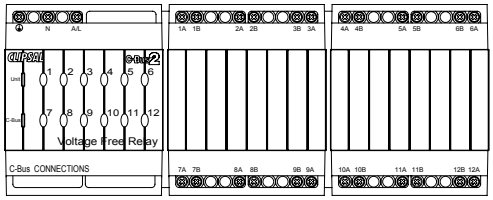
Load control is provided by a special dual contact relay designed or extreme long life with lighting loads, even with power factor corrected fluorescent lamps. One contact is tungsten designed to withstand high in-rush currents and arcing when opening and the other contact is silver alloy for steady state current operation.

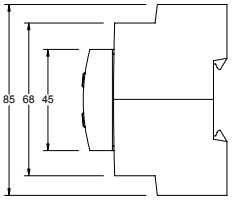
The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

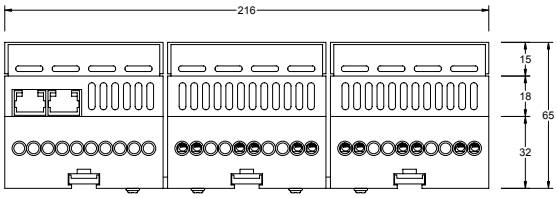
*L5512RVF*

### TECHNICAL INFORMATION

| Catalogue Number | L5512RVF | L5512RVFP | LE5512TRVF | LE5512TRVFP |
|---|---|---|---|---|
| Line Supply Voltage | 220-240VAC | | 110-120VAC | |
| Supply Frequency | 47-53Hz and 57-63Hz | | | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | | | |
| Load Rating per Channel | 10A | | | |
| Contact Type | Voltage free, normally open, magnetically latched | | | |
| Switch Operations | Greater than 60,000 operations | | | |
| In-Rush Current | 120A (20msec) | | | |
| Compatible Loads | Resistive, inductive, incandescent and fluorescent | | | |
| C-Bus Source Current | 200mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 10 | 100 | 10 | 100 |
| Status Indicators | Channel Status (12), Unit and C-Bus | | | |
| Warm Up Time | 5 seconds | | | |
| Network Clock | Software selectable | | | |
| Network Burden | Software selectable | | | |
| C-Bus Termination | 2 x RJ45 Socket | | | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | | |




*L5512RVF illustrated*

### PRODUCT FEATURES

- Provides 12 x 10A channels of switching output.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (and/or) programmable using the C-Bus Toolkit Software.
- Features magnetically latched relays that hold state in case of loss of C-Bus communications.
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5512RVF | 12 Channel Relay, 10A per Channel, 220/240VAC, 50/60Hz, C-Bus 200mA |
| L5512RVFP | 12 Channel Relay, 10A per Channel, 220/240VAC, 50/60Hz |
| LE5512TRVF | 12 Channel Relay, 10A per Channel, 110/120VAC, 50/60Hz, C-Bus 200mA |
| LE5512TRVFP | 12 Channel Relay, 10A per Channel, 110/120VAC, 50/60Hz |

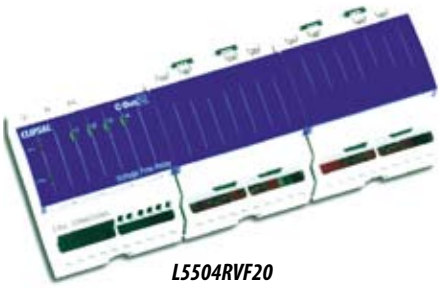
# 4 Channel 20A Relay Range
## Learn Enabled

The C-Bus 4 Channel Relay Units are DIN rail mount units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

Load control is provided by a special mechanically latched relay, with local mechanical override on the unit, independent of the C-Bus communications. Each relay is rated at 20A, and is compatible with resistive, inductive, incandescent and fluorescent load types.

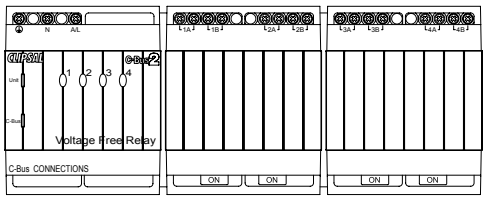
The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

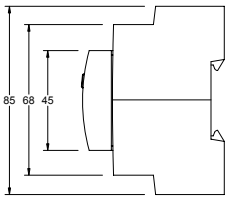


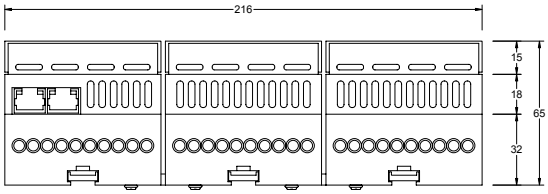
*L5504RVF20*

### TECHNICAL INFORMATION

| Catalogue Number | L5504RVF20 | L5504RVF20P | LE5504TRVF20 | LE5504TRVF20P |
|---|---|---|---|---|
| Line Supply Voltage | 220-240VAC | | 110-120VAC | |
| Supply Frequency | 47-53Hz and 57-63Hz | | | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | | | |
| Load Rating per Channel | 20A | | | |
| Contact Type | Voltage free, normally open, magnetically latched | | | |
| Switch Operations | Greater than 60,000 operations | | | |
| In-Rush Current | 120A (20msec) | | | |
| Compatible Loads | Resistive, inductive, incandescent and fluorescent | | | |
| C-Bus Source Current | 200mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 10 | 100 | 10 | 100 |
| Status Indicators | Channel Status (4), Unit and C-Bus | | | |
| Warm Up Time | 5 seconds | | | |
| Network Clock | Software selectable | | | |
| Network Burden | Software selectable | | | |
| C-Bus Termination | 2 x RJ45 Socket | | | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | | |




*L5504RVF20 illustrated*

### PRODUCT FEATURES

- Provides 4 x 20A channels of switching output.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control independent of C-Bus communications.
- Mechanical override independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (and/or) programmable using the C-Bus Toolkit Software.
- Features mechanically latched relays that hold state in case of loss of C-Bus communications.
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.

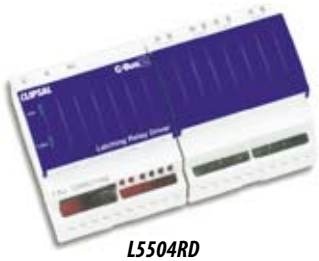
| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5504RVF20 | 4 Channel Relay, 20A per Channel, 220/240VAC, 50/60Hz, C-Bus, 200mA |
| L5504RVF20P | 4 Channel Relay, 20A per Channel, 220/240VAC, 50/60Hz |
| LE5504TRVF20 | 4 Channel Relay, 20A per Channel, 110/120VAC 50/60Hz, C-Bus, 200mA |
| LE5504TRVF20P | 4 Channel Relay, 20A per Channel, 110/120VAC, 50/60Hz |

# 4 Channel Relay Driver Range
## Learn Enabled

The DIN Driver is a 8M DIN Rail Mounted product designed to operate in conjunction with the relay units, 5000RL20 and 5002RL20. The relay driver is a C-Bus device, learn enabled which supplies control signal (pulse output) to drive the external relay.

The advantages of the relay driver are, the external relay may be remotely mounted, and if a relay unit fails it may be replaced without the need to replace the relay drivers.

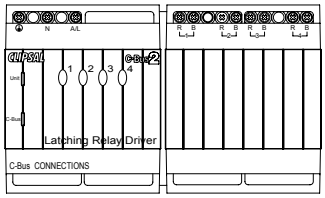
The relay driver features local overrides so the state of the external relay may be toggled from the unit.

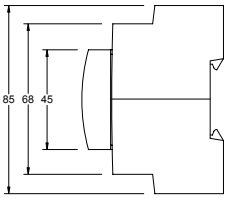


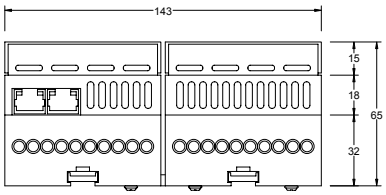
*L5504RD*

### TECHNICAL INFORMATION

| Catalogue Number | L5504RD | L5504RDP | L5504TRD | LE5504TRDP |
|---|---|---|---|---|
| Line Voltage | 220-240VAC | | 110-120VAC | |
| C-Bus Source Current | 220mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 100 | | 100 | |




*L5504RD illustrated*

### PRODUCT FEATURES

- Units available both with and without a 200mA C-Bus power supply on-board.
- Configured via either the C-Bus Installation Software or via the Learn Enabled Features.
- Local ON/OFF toggle buttons allow individual channels to be manually overridden at each unit.
- Remote ON and OFF facilities permit all channels to be turned ON or OFF without C-Bus network communication.
- Incorporates C-Bus Network Status, Mains Power Status, and Load Status indicators.
- Capable of generating a C-Bus clock signal if enabled.
- EMC Compliant to meet the requirements for marking with the CE and RCM marks.

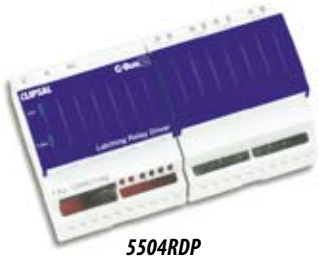
| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5504RD | 4 Channel Relay Driver, 220/240VAC, 50/60Hz, C-Bus 200mA |
| L5504RDP | 4 Channel Relay Driver, 220/240VAC, 50/60Hz |
| L5504TRD | 4 Channel Relay Driver, 110/120VAC, 50/60Hz, C-Bus 200mA |
| LE5504TRDP | 4 Channel Relay Driver, 110/120VAC, 50/60Hz |

# 4 Channel Relay Driver Range
## Non Learn Mode

The C-Bus 4 Channel Relay Units are DIN rail mount units designed to control up to four channels of external latching relay loads. The relay driver is used in conjunction with the relay modules type 5000RL20 (single channel 20A) and 5002RL20 (dual channel 20A).

These relay driver units feature a remote override for on/off control, C-Bus and Unit status indicators. These units are low cost and do not feature learn mode or local override control.

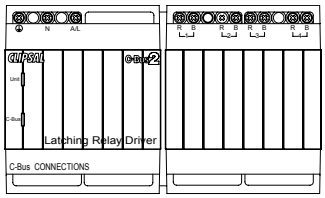
The relay units are available as passive models only, and do not source current to the C-Bus network.

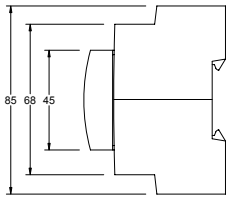


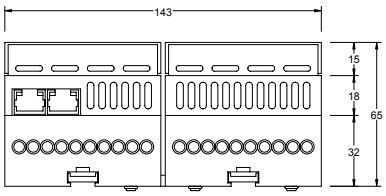
*5504RDP*

### TECHNICAL INFORMATION

| Catalogue Number | 5504RDP | E5504TRDP |
|---|---|---|
| Line Supply Voltage | 220-240VAC | 110-120VAC |
| Supply Frequency | 47-53Hz and 57-63Hz | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | |
| Driver Circuit | Use only with 5000RL20 or 5002RL20 | |
| C-Bus Source Current | 0mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 100 | 100 |
| Status Indicators | Unit and C-Bus | |
| Warm Up Time | 5 seconds | |
| Network Clock | Software selectable | |
| Network Burden | Software selectable | |
| C-Bus Termination | 2 x RJ45 Socket | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | |
| Operating Temperature Range | 0˚C to 45˚C | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | |




*5504RDP illustrated*

### PRODUCT FEATURES

- Capable of controlling up to four channels of external latching relay loads.
- Programmable via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (and/or) programmable using the C-Bus Toolkit Software.
- Designed to fit standard 35mm top hat DIN rail, measures just 8M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| 5504RDP | 4 Channel Relay Driver, 220/240VAC, 50/60Hz |
| E5504TRDP | 4 Channel Relay Driver, 110/120VAC, 50/60Hz |

# Single Relay Module

The Single Channel Relay, is a heavy duty, mechanically latched, DIN rail mounted relay and is rated at 20 Amps continuous use. The relay can withstand high in-rush currents and is suitable for incandescent, high intensity discharge lamps and fluorescent loads.

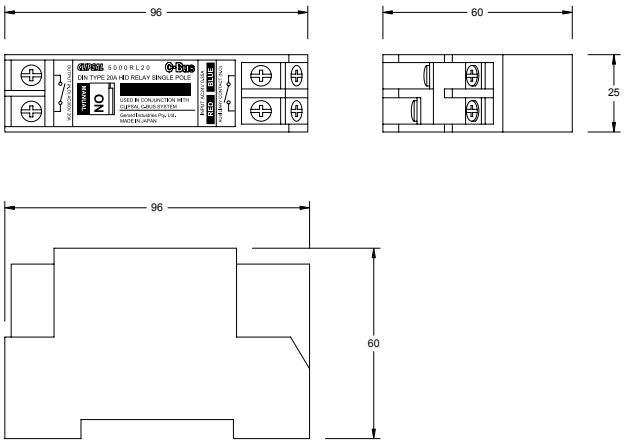
The relay module features a set of auxiliary contacts (normally open) and mechanical on/off control for manual operation.

The single channel relay must be used in conjunction with the 5504RDP series of relay driver products.

*5000RL20*

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5000RL20** |
| Line Supply Voltage | **220-240VAC** |
| Supply Frequency | **47-53Hz and 57-63Hz** |
| Load Rating per Channel | **20A AC3** |
| Contact Type | **Voltage free, normally open, mechanically latched** |
| Switch Operations | **Greater than 30,000 operations** |
| Auxiliary Contacts | **Normally open** |
| In-Rush Current | **300A (80msec)** |
| Compatible Loads | **Resistive, inductive, incandescent and fluorescent** |
| Load Termination | **2 x 1.5mm² or 1 x 2.5mm²** |
| Dimensions | **1.5M (M = 17.5mm)** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |
| Compliances | **RCM, CE** |




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5000RL20** | Single Relay, 20A (High In-Rush Current) |

# Dual Relay Module

The Dual Channel Relay, is a heavy duty, mechanically latched, DIN rail mounted relay and is rated at 20 Amps continuous use. The relay can withstand high in-rush currents and is suitable for incandescent, high intensity discharge lamps and fluorescent loads.

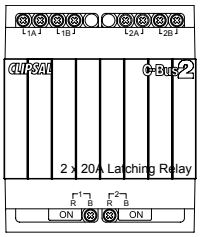
The relay module features mechanical on/off control for manual operation.

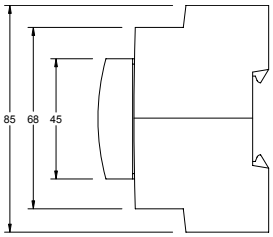
The dual channel relay must be used in conjunction with the 5504RDP series of relay driver products.

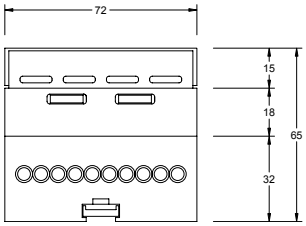
***5002RL20***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5002RL20** |
| Line Supply Voltage | **220-240VAC** |
| Supply Frequency | **47-53Hz and 57-63Hz** |
| Load Rating per Channel | **20A AC3** |
| Contact Type | **Voltage free, normally open, mechanically latched** |
| Switch Operations | **Greater than 60,000 operations** |
| In-Rush Current | **120A (20msec)** |
| Compatible Loads | **Resistive, inductive, incandescent and fluorescent** |
| Load Termination | **2 x 1.5mm² or 1 x 2.5mm²** |
| Dimensions | **4M (M = 17.5mm)** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |
| Compliance | **RCM, CE** |




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5002RL20** | Dual Relay, 20A |

# 4 Channel Changeover Relay Range
## Learn Enabled

The C-Bus 4 Channel Changeover Relay Units are DIN rail mount units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and Unit status indicators.

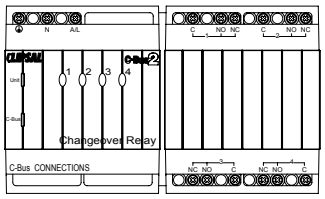
Load control is provided by non-latched, changeover relays that feature both normally open (N.O.) and normally closed (N.C.) contacts. The changeover relays can be interlocked and have applications in curtain and blind controls (up/down) or 3 speed air-conditioning controls (on/off, low, medium and high).

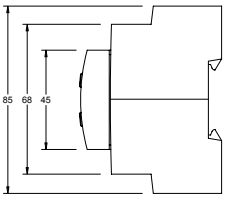
The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

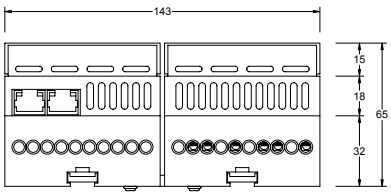
*L5504RVFC*

### TECHNICAL INFORMATION

| Catalogue Number | L5504RVFC | L5504RVFCP | LE5504TRVFC | LE5504TRVFCP |
|---|---|---|---|---|
| Line Supply Voltage | 220-240VAC | | 110-120VAC | |
| Supply Frequency | 47-53Hz and 57-63Hz | | | |
| C-Bus Supply Voltage | 15-36VDC @ 0mA | | | |
| Load Rating per Channel | 10A resistive, 5A inductive and incandescent, 1A fluorescent | | | |
| Contact Type | Voltage free, normally open, magnetically latched | | | |
| Switch Operations | Greater than 60,000 operations | | | |
| Compatible Loads | Resistive, inductive, incandescent and fluorescent | | | |
| C-Bus Source Current | 200mA | 0mA | 200mA | 0mA |
| Maximum Number of Units on a Single C-Bus Network | 10 | 100 | 10 | 100 |
| Status Indicators | Channel Status (4), Unit and C-Bus | | | |
| Warm Up Time | 5 seconds | | | |
| Network Clock | Software selectable | | | |
| Network Burden | Software selectable | | | |
| C-Bus Termination | 2 x RJ45 Socket | | | |
| Load Termination | 2 x 1.5mm² or 1 x 2.5mm² | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | |
| Operating Humidity Range | 0 - 95% RH, non-condensing | | | |




*L5504RVFC illustrated*

### PRODUCT FEATURES

- Provides 4 channels of changeover, non-latched relay outputs.
- Programmable via the learn mode feature or using the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Local and remote on/off control, independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (and/or) programmable using the C-Bus Toolkit Software.
- Relays may be interlocked for curtain, blinds and 3 speed air-conditioning controls.
- Designed to fit standard 35mm top hat DIN rail, measures just 8M in size.
- Designed to fit into standard electrical switchboards.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| L5504RVFC | 4 Channel Changeover Relay, 220/240VAC, 50/60Hz, C-Bus 200mA |
| L5504RVFCP | 4 Channel Changeover Relay, 220/240VAC, 50/60Hz |
| LE5504TRVFC | 4 Channel Changeover Relay, 110/120VAC, 50/60Hz, C-Bus 200mA |
| LE5504TRVFCP | 4 Channel Changeover Relay, 110/120VAC, 50/60Hz |

# Single and Two Channel Relay Range
## Non Learn Mode

The C-Bus 1 and 2 Channel Relay Units are panel mount units suitable for switching resistive, inductive and fluorescent loads. The units are ideally suited for mounting inside fluorescent lighting products, street lighting columns and adjacent HID luminaires due to their small size and volume.

These relay units feature a remote override for on/off control and a C-Bus status indicator.

Load control is provided by a special dual contact relay designed or extreme long life with lighting loads, even with power factor corrected fluorescent lamps. One contact is tungsten designed to withstand high in-rush currents and arcing when opening and the other contact is silver alloy for steady state current operation.

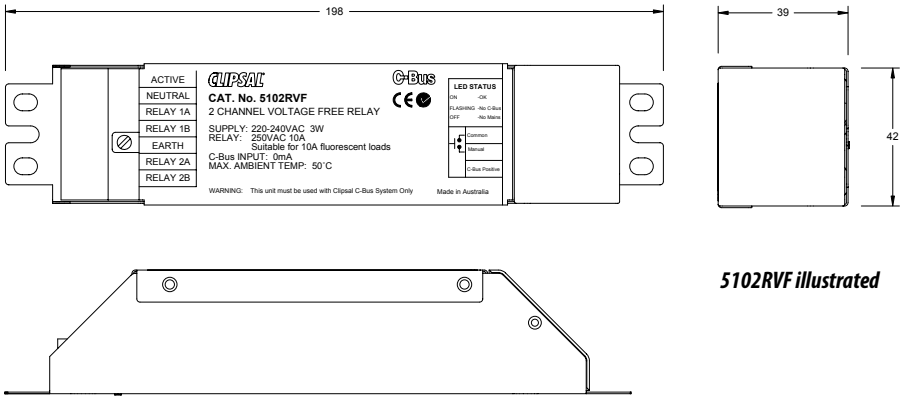
The single channel relay also features a 0-10V output, and is compatible with dimmable electronic ballasts, hence the relay may be used to switch line voltage to the ballast as well as dim the output using the 0-10V output.

The relay units are available as passive models only, hence do not source current to the C-Bus network.

***5102RVF***

### TECHNICAL INFORMATION

| Catalogue Number | 5101R | E5101TR | 5102RVF | E5102TRVF |
|---|---|---|---|---|
| Line Supply Voltage | **220-240VAC** | **110-120VAC** | **220-240VAC** | **110-120VAC** |
| Supply Frequency | **47-53Hz and 57-63Hz** | | | |
| C-Bus Supply Voltage | **15-36VDC @ 0mA** | | | |
| Load Rating per Channel | **10A AC3** | | | |
| Contact Type | **Switched active** | | **Voltage free, normally open, non latched** | |
| Switch Operations | **Greater than 60,000 operations** | | | |
| In-Rush Current | **120A (20msec)** | | | |
| Compatible Loads | **Resistive, inductive, incandescent and fluorescent** | | | |
| Analog Output | **0 - 10VDC, compatible with up to 2 x 36W immable electronic ballasts** | | - | |
| C-Bus Source Current | **0mA** | | | |
| Maximum Number of Units on a Single C-Bus Network | **100** | | | |
| Status Indicators | **C-Bus power available** | | | |
| Warm Up Time | **5 seconds** | | | |
| C-Bus Termination | **Screw terminals** | | | |
| Load Termination | **Push connectors, 1 x 2.5mm²** | | | |
| Operating Temperature Range | **0˚C to 45˚C** | | | |
| Operating Humidity Range | **0 - 95% RH, non-condensing** | | | |




***5102RVF illustrated***

### PRODUCT FEATURES

- Programmable via the C-Bus Toolkit Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power.
- Remote on/off control independent of C-Bus communications.
- Programmable power up state following power cycling.
- Logic states (and/or) programmable using the C-Bus Toolkit Software.
- Panel mounted, small size and volume.
- RCM (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5101R** | 1 Channel Relay, 10A, 220/240VAC, 50/60Hz |
| **5102RVF** | 2 Channel Relay, 10A, 220/240VAC, 50/60Hz |
| **E5101TR** | 1 Channel Relay, 10A, 110/120VAC, 50/60Hz |
| **E5102TRVF** | 2 Channel Relay, 10A, 110/120VAC, 50/60Hz |

# Infrared Output Units

The Infrared Output Unit is a C-Bus device, which is used to control audio visual and air-conditioning units. The infrared output module is powered from the C-Bus network and no additional power supplies are required.

The infrared module can store up to 200 native IR codes on the unit stored on non-volatile memory. Additional IR codes may be downloaded to the unit, at any time, before or following installation. The IR codes are triggered by a C-Bus group address, which may be initiated from a C-Bus key input, touch screen or any of the C-Bus application software suites.

The infrared output unit features two infrared emitter outputs that are individually addressable. Multiple infrared units may be located on the same C-Bus network, providing localized control of IR devices.

The infrared unit is supplied with an extensive IR code library with popular AV and HVAC manufacturer's codes. An optional IR code reader type 5100RD is available, which may be used to learn IR codes and then downloaded to the unit using the high speed programming cable accessory.

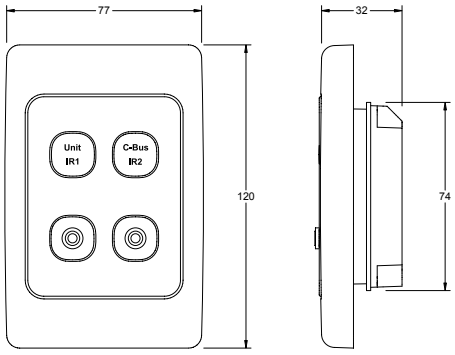
***5034NIRT***

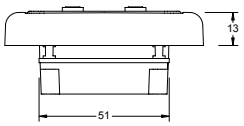
## TECHNICAL INFORMATION

| | |
|---|---|
| C-Bus Supply Voltage | **15-36VDC @ 18mA** |
| IR Code Capacity | **200 IR codes stored on unit** |
| IR Carrier Frequency | **30-455kHz** |
| IR Pulse Width | **> 5 micro seconds** |
| Maximum Number of Units on a Single C-Bus Network | **50** |
| Status Indicator | **Programmable, (Unit and IR Transmit)** |
| Warm Up Time | **5 seconds** |
| C-Bus Termination | **Screw terminals** |
| Programming Port | **4-way SIL header** |
| Emitter Outputs | **2 x 3.5mm audio sockets** |
| Network Clock | **Software selectable** |
| Network Burden | **Software selectable** |
| Standard Colours | **WE, SG, DS, CM, BR and BK** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **0 - 95% RH, non-condensing** |

## PRODUCT FEATURES

- Up to 200 unique IR codes may be stored on the infrared unit.
- Programmable using the high speed programming cable option, for fast downloads.
- Suitable for audiovisual and air-condition control.
- Each infrared channel is software addressable.
- Mounts onto a standard single gang wall plate.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.




***5034NIRT illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Australian/US Standard** | |
| **2000 Series** | |
| **5034NIRT** | 2 Channel Infrared Controller |
| **C2000 Classic Series** | |
| **C5034NIRT** | 2 Channel Infrared Controller |
| **SC2000 Slimline Series** | |
| **SC5034NIRT** | 2 Channel Infrared Controller |
| **SL2000 Eclipse Series** | |
| **SL5034NIRT** | 2 Channel Infrared Controller |
| **Colour Selection: (WE)** White, **(SG)** Soft Grey, **(DS)** Desert Sand, **(CM)** Cream, **(BR)** Brown, **(BK)** Black | |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **British Standard** | |
| **E5034NIRT** | 2 Channel Infrared Controller |
| **Colour Selection: (WE)** White, **(BK)** Black | |
| **Accessories** | |
| **8050LD** | Single Infrared Emitter Lead |
| **8050/2LD** | Dual Infrared Emitter Lead |
| **5100RP** | Infrared Code Learning Unit, Complete with Windows Based Software |
| **5100HSC** | High-Speed Programming Cable |

# Audio Matrix Switcher

The C-Bus Multi-Room Audio System is an audio distribution system that utilises Category 5 data cable for control and audio signal distribution throughout the building. The system has been designed utilising new digital audio distribution technology (developed by Clipsal), in conjunction with Clipsal C-Bus core technology for system communication and integration.

Clipsal's digital audio distribution technology allows for noise and interference free audio reproduction, whilst the C-Bus technology allows the audio products to be seamlessly integrated and used with all existing C-Bus products.

A core component of the audio distribution system is the Audio Matrix Switcher, which is used to switch up to four stereo audio inputs to any of the eight available digital audio outputs. Switching of the audio sources is via any C-Bus input units such as a key input, dynamic label switch or touch screen or via the control panel on the front of the matrix switcher. Using the C-Bus network, it is possible to select the audio source, volume up/down and mute sound.

Housed in a neat and attractive mechanical enclosure, the audio matrix switcher is designed to be located along side the audio equipment it controls.

Powered from a plug pack supply, the unit incorporates a C-Bus power supply capable of sourcing 400mA to the wired network.

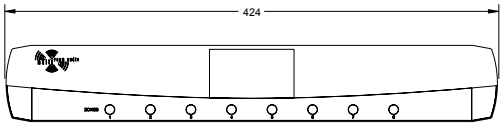
***560884***

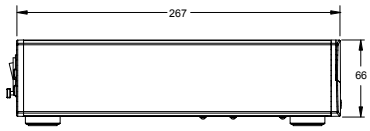
## TECHNICAL INFORMATION

| | |
|---|---|
| External Power Supply | **220/240VAC, 50Hz** |
| C-Bus Source Current | **400mA** |
| Design Technology | **16-bit audio path** |
| Sampling Rate | **48kHz** |
| Source Inputs | **4 line level analogue<br>2 Mono all channel inputs<br>1 Digital audio 1 TOSlink** |
| Zone Outputs | **8 digital audio** |
| Power Distribution | **Centralised power sufficient for 6W per chanel for each of the 8 zones.** |
| Wiring Specification | **Category 5 UTP cable** |
| Distance between Matrix Switcher and Amplifier | **45m (maximum)** |
| Analogue Loop Through | **Use loop connectors** |
| Digital Audio Input | **RJ45 and TOSlink** |
| Analogue Input Impedance | **47kΩ** |
| Digital Input Impedance | **110kΩ** |
| IR Outputs | **2 x C-Bus IR and 1 x reticulated IR ports** |
| Dimensions | **424mm(W) x 267mm(D) x 66mm(H)** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |

## PRODUCT FEATURES

- Digital audio distribution technology for noise free audio reproduction.
- Four stereo analog audio source inputs.
- Eight digital audio zone outputs.
- Two mono audio annunciation inputs.
- One fibre-optic SPDIF input.
- On board control panel features LCD display and control buttons.
- Internal 400mA C-Bus power supply.
- Programmable over C-Bus or USB connection.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.






| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **560884** | Audio Matrix Switcher, C-Bus Enabled, 4 Inputs/8 Outputs |

# Audio Distribution Unit

The C-Bus Multi-Room Audio System is an audio distribution system that utilises Category 5 data cable for control and audio signal distribution throughout the building. The system has been designed utilising new digital audio distribution technology (developed by Clipsal), in conjunction with Clipsal C-Bus core technology for system communication and integration.

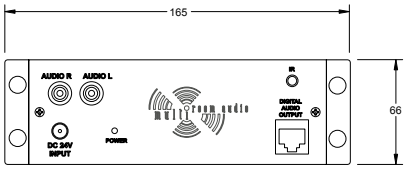
Clipsal's digital audio distribution technology allows for noise and interference free audio reproduction, whilst the C-Bus technology allows the audio products to be seamlessly integrated and used with all existing C-Bus products.

The audio distributor module may be used in the audio distribution system to distribute a single stereo audio source to the C-Bus audio amplifiers via a digitized signal over the Category 5 UTP cable. This results in a simple, single source audio distribution system.

***560011***

## TECHNICAL INFORMATION

| | |
|---|---|
| Design Technology | **16-bit audio path** |
| Sampling Rate | **48kHz** |
| Source Inputs | **Stereo line level analog** |
| Zone Outputs | **1 Digital audio** |
| Digital Audio Input | **RJ45 and TOSlink** |
| Analogue Input Impedance | **47kΩ** |
| Digital Input Impedance | **110kΩ** |
| Wiring Specification | **Category 5 UTP cable** |
| Connectors | **RJ45: Digital audio out<br>RCA: Analog in** |
| Dimensions | **165mm(W) x 50mm(D) x 40mm(H)** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **10 - 95% RH** |




## PRODUCT FEATURES

- Digital audio distribution technology for noise free audio reproduction.
- One stereo analog source input.
- One digital audio output, which can be cascaded to multiple zones.
- Provides limited power to amplifiers, with the DC power pack connected.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **560011** | Audio Distribution Unit, 1 Input/1 Output |
| **5600P24/500AU** | External Power Supply for Audio Distribution Unit, Switch Mode, 24VDC, 500mA |

# Audio Amplifiers

The C-Bus Multi-Room Audio System is an audio distribution system that utilises Category 5 data cable for control and audio signal distribution throughout the building. The system has been designed utilising new digital audio distribution technology (developed by Clipsal), in conjunction with Clipsal C-Bus core technology for system communication and integration.

Clipsal's digital audio distribution technology allows for noise and interference free audio reproduction, whilst the C-Bus technology allows the audio products to be seamlessly integrated and used with all existing C-Bus products.

The audio amplifiers used in the audio distribution system are available in two formats. The desktop audio amplifier features a rated output of 25 Watts per channel and features volume, bass, treble and balance adjustment over the C-Bus network. The desktop amplifier front panel features a power on/off, mute, volume adjust and source select. In addition the unit incorporates an IR receiver window to operate with a remote control.

The remote mount amplifiers are available in two output power ratings of 10 Watts and 25 Watts per channel. The remote amplifiers feature volume, bass, treble and balance adjusted over the C-Bus network. The remote dimmers are designed for local mounting, adjacent the speakers, in the ceiling space and do not feature any front panel controls.

The amplifiers connect to the audio matrix switcher via Category 5 UTP cable, and feature a C-Bus wired connection for control.

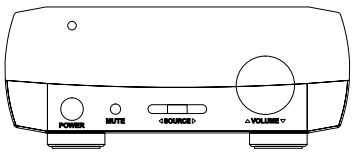
The audio amplifiers are powered off the C-Bus network, but in certain types of installations the audio amplifiers operate in conjunction with a local plug pack power supply.

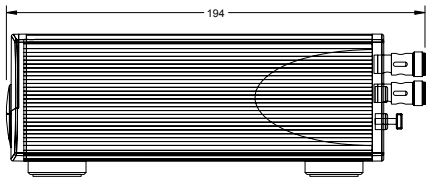
***560125D***

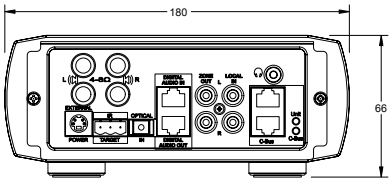
***560110R***

## TECHNICAL INFORMATION

| Catalogue Number | 560125D | 560125R | 560110R |
|---|---|---|---|
| Power/Channel RMS | **25W** | **25W** | **10W** |
| Output Impedance | **4Ω** | | |
| Output Frequency | **20Hz - 20kHz** | | |
| Tone Control | **Bass and treble (+/- 16dB)** | | |
| Balance Control | **+/- 16dB** | | |
| Inputs | **Digital audio/line level stereo analog/TOSlink** | | |
| Outputs | **Speakers/line level analog stereo/digital audio** | | |
| Wiring Specification | **Category 5 UTP cable** | | |
| Connectors | **RJ45: Digital audio in/out<br>TOSlink: Optical<br>RCA: Analog** | | |
| Digital Audio Input | **RJ45 and TOSlink** | | |
| External Power Supply | **24VDC** | | |
| Dimension | **180mm(W) x 194mm(D) x 66mm(H)** | | |
| Warm Up Time | **5 seconds** | | |
| Operating Temperature Range | **0 ˚C to 40 ˚C** | | |
| Operating Humidity Range | **10 - 95% RH** | | |




## PRODUCT FEATURES

- Digital audio distribution technology for noise free audio reproduction.
- Amplifiers are controlled from any input device over the C-Bus network.
- Volume, bass, treble and balance control.
- 10W and 25W perchannel amplifiers.
- Remote and desktop mount versions.
- Powered from the C-Bus network or local plug pack power supplies.
- Star and cascaded wiring configuration.
- C-Tick (Australia/New Zealand), CE (European Community) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **560125D** | Amplifier, Audio, Stereo, C-Bus Enabled, Desktop Mount, 2 x 25W |
| **560110R** | Amplifier, Audio, Stereo, C-Bus Enabled, Remote Mount, 2 x 10W |
| **560125R** | Amplifier, Audio, Stereo, C-Bus Enabled, Remote Mount, 2 x 25W |
| **5600P24/3750AU** | External Power Supply for Audio Amplifier, Switch Mode, 24VDC, 3.75A |

# Audio Speakers, Indoor
## Rectangular

Clipsal offers are range of quality, performance audio speakers to complement the audio distribution system.

These indoor speakers are designed for flush mounting into the wall surface and are rectangular in shape. The indoor speakers are ultra low profile when fitted, with no visible screws showing. In addition, these speakers do not require any back box of any type.

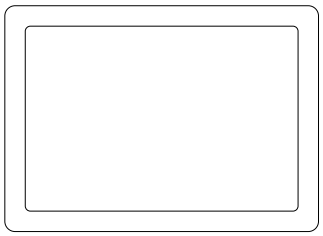
The speakers are simple to install, they feature sprint loaded terminals and white powder coated, steel metal grill.

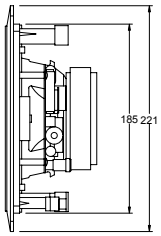
The speakers are available with either a Polypropylene or higher performance Kevlar cone material for quality sound reproduction.

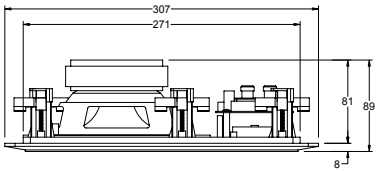
*5600IWP*

### TECHNICAL INFORMATION

| Catalogue Number | 5600IWK | 5600IWKP |
|---|---|---|
| Cone Material | **Polypropylene** | **Kevlar** |
| Sensitivity | **<88dB** | **<91dB** |
| Frequency Response | **50Hz - 20kHz** | **49Hz - 20kHz** |
| Power Output | **60W RMS** | |
| Impedance | **8Ω** | |
| Terminals | **Spring loaded** | |
| Dimension | **228mm(H) x 160mm(D) x 160mm(H)** | |
| Colours | **Black or White** | |
| Operating Temperature Range | **0˚C to 45˚C** | |
| Operating Humidity Range | **0 - 95% RH** | |






*5600IWP illustrated*

### PRODUCT FEATURES

- High quality sound reproduction.
- Simple-to-install and operate.
- Polypropylene speakers features stage 12/12dB crossover for both tweeter and woofer. The Kevlar speakers have a 4th stage 12/12dB crossover for both tweeter and woofer.
- Speakers are supplied as a pair.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5600IWP** | Speaker, Pair, Flush Mount, 60W, 8 Ohm, Rectangular, Polypropylene, Indoor |
| **5600IWK** | Speaker, Pair, Flush Mount, 60W, 8 Ohm, Kevlar, Indoor |

# Audio Speakers, Indoor
## Circular

Clipsal offers are range of quality, performance audio speakers to complement the audio distribution system.

These indoor speakers are designed for flush mounting into the ceiling surface and are circular in shape. The indoor speakers are ultra low profile when fitted, with no visible screws showing. In addition, these speakers do not require any back box of any type.

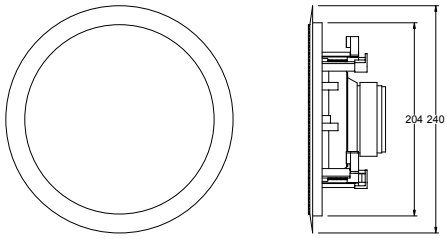
The speakers are simple to install, they feature sprint loaded terminals and white powder coated, steel metal grill.

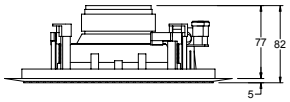
The speakers are available with either a Polypropylene or higher performance Kevlar cone material for quality sound reproduction.

*5600ICP*

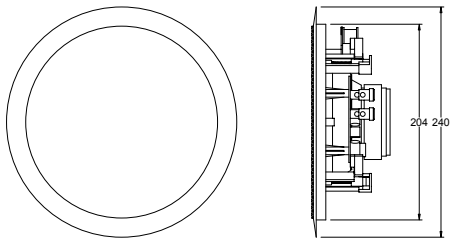
### TECHNICAL INFORMATION

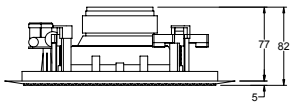
| Catalogue Number | 5600ICP | 5600ICK |
|---|---|---|
| Cone Material | **Polypropylene** | **Kevlar** |
| Sensitivity | **<90dB** | |
| Frequency Response | **45Hz - 20Hz** | |
| Power Output | **60W RMS** | |
| Impedance | **8Ω** | |
| Terminals | **Spring loaded** | |
| Dimension | **240mm diameter x 83mm(D)** | |
| Colours | **White** | |
| Operating Temperature Range | **0˚C to 45˚C** | |
| Operating Humidity Range | **10 - 95% RH** | |




*5600ICP illustrated*




*5600ICK illustrated*

### PRODUCT FEATURES

- High quality sound reproduction.
- Simple-to-install and operate.
- Polypropylene speakers features stage 12/12dB crossover for both tweeter and woofer. The Kevlar speakers have a 4th stage 12/12dB crossover for both tweeter and woofer.
- Speakers are supplied as a pair.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5600ICP** | Speaker, Pair, Flush Mount, 60W, 8 Ohm, Circular, Polypropylene, Indoor |
| **5600ICK** | Speaker, Pair, Flush Mount, 60W, 8 Ohm, Circular, Kevlar, Indoor |

# Audio Speakers, Outdoor
## Shelf Top

Clipsal offers are range of quality, performance audio speakers to complement the audio distribution system.

The outdoor speakers are designed to accurately reproduce high fidelity music in an outdoor environment. With a rigid, high-impact plastic cabinet, polypropylene drivers and powder coated metal grilles. The outdoor speakers should be installed in a weather-protected environment, such as under an eave or verandah.

The speakers are simple to install, they feature sprint loaded terminals for easy cable terminations. The speakers are supplied with adjustable mounting brackets for quick installation.

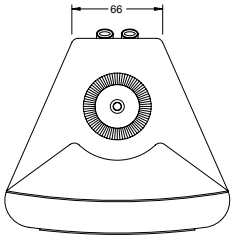
***56000DP***

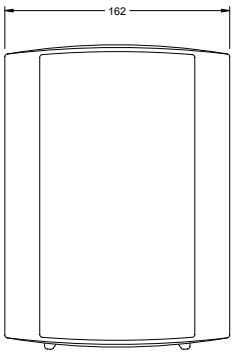
### TECHNICAL INFORMATION

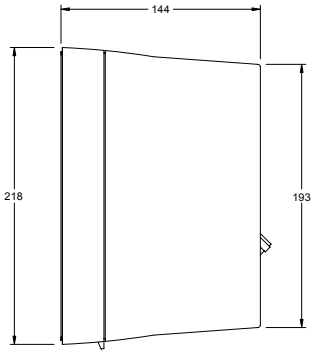
| | |
|---|---|
| Cone Material | **Polypropylene** |
| Sensitivity | **<88dB** |
| Frequency Response | **55Hz - 20kHz** |
| Power Output | **35W RMS** |
| Impedance | **8Ω** |
| Terminals | **Spring loaded** |
| Dimensions | **305mm(H) x 218mm(W) x 94mm(D)** |
| Colours | **Black or White** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |

### PRODUCT FEATURES

- High quality sound reproduction.
- Simple-to-install and operate.
- Polypropylene speakers features stage 12/12dB crossover for both tweeter and woofer.
- Speakers are supplied as a pair.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **56000DP** | Speaker, Pair, Shelf Top, 60W, 8 Ohm, Polypropylene, Outdoor |

# C-Bus Toolkit Software, v3.0

The C-Bus Toolkit Software is a suite of software applications from Clipsal to aid the programming and online commissioning of the C-Bus hardware. The Toolkit Software includes the updated versions of the C-Bus Configuration Software, C-Bus Calculator and C-Bus Diagnostics Tool.

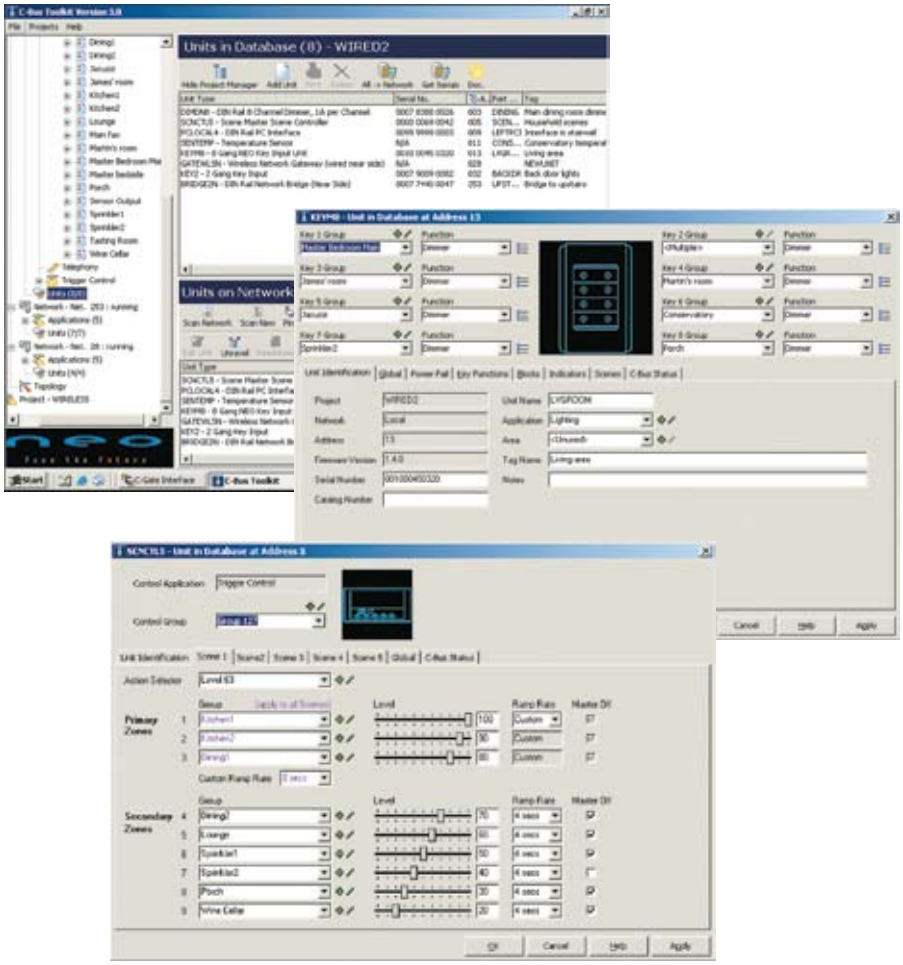
The Toolkit Software is based on a standard Windows Explorer style interface, which makes the creation and management of C-Bus Projects simpler and more efficient. The Toolkit Software features an improved browser view and enhanced device templates for programming, in addition the software also supports longer user defined tags and descriptions. Based on a 32-bit platform, the Software features a faster response time and reduced programming time.

The C-Bus Toolkit Software includes an integrated C-Bus Calculator, which automatically updates as devices are added or deleted from the project. The C-Bus Calculator helps to optimise the design of the C-Bus network and ensures that the network is designed within specified limits.

The Toolkit Software supports remote programming via a Serial or Ethernet Interface, and supports remote programming of the network over the Internet.

The Toolkit Software supports an external Barcode Reader, which may be used to read the unique serial number affixed to each unit and display on the browser view. This also helps to track each unit individually and uniquely in the installation.

The C-Bus Toolkit Software is available at no charge, from Clipsal website at www.clipsal.com/cis.




C-Bus Toolkit

## PRODUCT FEATURES

- Fully backwards compatible with all existing C-Bus devices and installations.
- Compatible with Windows ™ 98SE, XP, ME and 2000 operating systems.
- Based on standard Windows Explorer ™ style interface.
- Supports programming via Serial (5500PC) and Ethernet (5500CN).
- Upgraded and fully interactive Topology Manager.
- Upgraded and integrated Project Manager.
- Upgraded and fully integrated C-Bus Calculator.
- Supports remote programming of the C-Bus installation via the Internet.
- Supports live scene and device control from the template view.
- Improved layout and intuitive, easy-to-use graphical user interface.
- Extensive on-line help.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5000S/3*** | C-Bus Toolkit Software |
| **5100BCS** | Bar-Code Reader, USB Connection |

**Visit www.clipsal.com/cis to download*

# HomeGate Software v3.0

The HomeGate Software package is a powerful yet easy to use software application that provides a simple-to-use graphical interface to C-Bus from a personal computer. HomeGate has been especially developed for the novice user and the residential market. Using HomeGate it is possible to control and monitor your home's automation system from the PC, including from a remote location over the Internet.

This version of HomeGate features a user programmable logic engine that allows the user to create and run scenarios, events and routines.

The programming language used in the logic engine is similar to the Pascal computer language, and the HomeGate provides two programming methods. Wizards allow the novice user to set or create simple programs while for the more advanced user a text based editor is available for more complex and sophisticated functions.

- Scheduling of events based on time and date.
- Conditional logic (IF THEN, AND, OR, NOT etc.)
- Flow Control (FOR, REPEAT, WHILE).
- Variables (Integer, Real, Boolean, Character, String).
- Arithmetical calculations.

The logic engine also supports other applications including:

- Control and monitoring of C-Bus Group Addresses and Scenes.
- Serial and TCP/IP interfaces.
- Data and event logging.
- User inputs and outputs.
- Edge triggered events.

***5000HG/3***

## PRODUCT FEATURES

Major additions and enhancements found in this version of the application include:

- Ability for components to control system input and output variables.
- Special functions allow users to set:
  - Internet & networking properties
  - Display system properties (processor, memory, etc.)
  - Select screen saver
  - Time zone, time and date format
  - Sound files and store scenes.
- Support for multiple project themes.
- Automatic scene creation.
- Supports embedded Web pages.
- Supports animated bitmap graphics.
- Improved and enhanced libraries of bitmaps, icons and backgrounds.
- Automatic component labelling.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5000HG/3** | HomeGate Application Software, Single Network License |
| **5000HG5/3** | HomeGate Application Software, Five Network License |
| **5000HGUP3** | HomeGate Upgrade Pack, Version 3 Upgrade |

# Schedule Plus Software, v3.0

The Schedule Plus Software package is a powerful software application that provides a simple-to-use yet powerful graphical interface to C-Bus, from a personal computer. Schedule Plus has been especially developed for the facilities or building manager in the commercial market. Using Schedule Plus it is possible to automate your building's lighting control system and provides a centralised, real-time management of the building's electrical services.

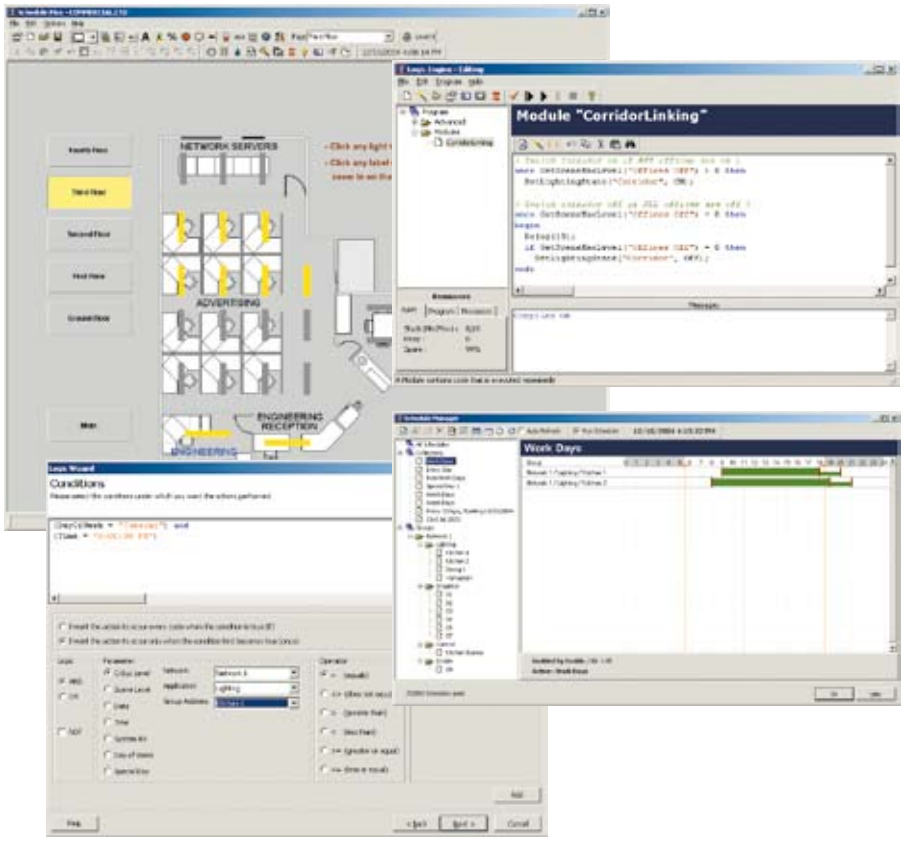
This version of Schedule Plus features a user programmable logic engine that allows the user to create and run scenarios, events and routines. In addition, Schedule Plus features an enhanced and powerful schedular program that provides the building owner with increased flexibility for time management and event driven tasks.

The programming language used in the logic engine is similar to the Pascal computer language, and the Schedule Plus provides two programming methods. Wizards allow the novice user to create simple programs while for the more advanced user, a text based editor is available for more complex and sophisticated functions.

- Scheduling of events based on time and date.
- Conditional logic (IF THEN, AND, OR, NOT etc.)
- Flow Control (FOR, REPEAT, WHILE).
- Variables (Integer, Real, Boolean, Character, String).
- Arithmetical calculations.

The logic engine also supports other applications including:

- Control and monitoring of C-Bus Group Addresses and Scenes.
- Serial and TCP/IP interfaces.
- Data and event logging.
- User inputs and outputs.
- Edge triggered events.



***5000SP/3***

## PRODUCT FEATURES

Major additions and enhancements found in this version of the application include:

- Ability for components to control system input and output variables.
- Special functions allow users to set:
  - Internet & networking properties
  - Display system properties (processor, memory, etc.)
  - Select screen saver
  - Time zone, time and date format
  - Sound files and store scenes.
- Support for multiple project themes.
- Automatic scene creation.
- Supports embedded Web pages.
- Supports animated bitmap graphics.
- Improved and enhanced libraries of bitmaps, icons and backgrounds.
- Automatic component labelling.

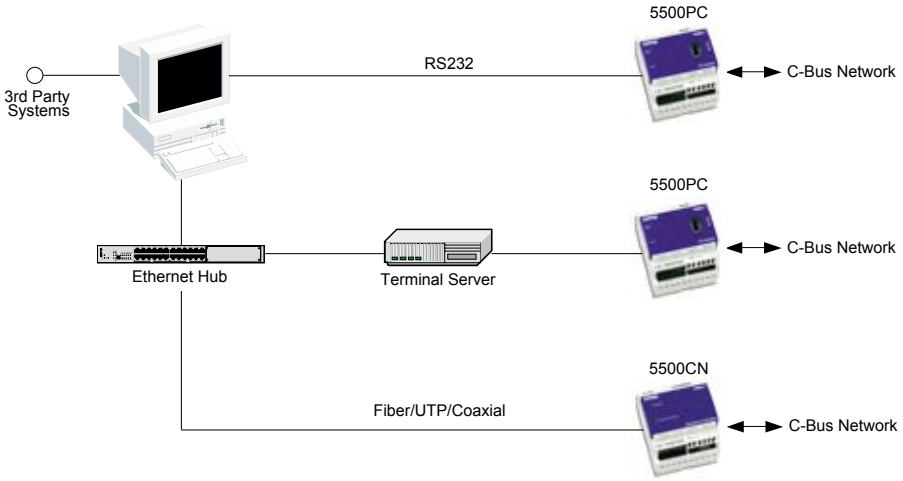
| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5000SP/3** | Schedule Plus Application Software, Single Network License |
| **5000SP5/3** | Schedule Plus Application Software, Five Network License |
| **5000SPUNL/3** | Schedule Plus Application Software, Unlimited Network License |
| **5000SPUP3** | Schedule Plus Upgrade Pack, Version 3 Upgrade License |

# C-Gate Server Application Software

C-Gate is a powerful server application, designed to provide a high-level interface between third party systems and the C-Bus control system. Developers and system integrators can use C-Gate to integrate their products to C-Bus.

A high level command and event interface allows control and monitoring of a C-Bus network without detailed knowledge of C-Bus protocol. The C-Gate Server software can be located on a separate server machine or can run in the background on a personal computer.

C-Gate uses industry standard TCP/IP protocols to support:
- Multiple C-Bus networks - connected to a TCP/IP backbone network.
- Multiple connections - from one or more front end or building management systems using TCP/IP sockets.
- Simple connection to web servers for Internet based control and monitoring.



***5000CG***

## PRODUCT FEATURES

- Open standard TCP/IP interface for integration to third party systems - Building management systems, CCTV, access control, fire alarm, HVAC, SCADA, Java applications, Web Servers and Web Browsers.
- Utilise standard Ethernet technology products to network multiple C-Bus networks over a standard LAN or WAN.
- High speed monitoring & control of Clipsal C-Bus devices.
- Utilise standard Ethernet technology products to run C-Bus over different media i.e. fiber optic, UTP or coaxial cable.
- Connectivity of multiple C-Bus networks through serial, terminal server or C-Bus Network Interface options.
- A number of C-Bus networks can be managed in parallel high speed, hence control is rapid and monitoring is accurate even when multiple networks are involved.
- C-Gate allows C-Bus networks to be connected across TCP/IP backbone network as well as through a local TCP/IP interface.
- Operates in Windows and Linux OS environments.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5000CG** | C-Gate Software, Single Network License |
| **5000CG5** | C-Gate Software, Five Network License |
| **5000CG10** | C-Gate Software, Ten Network License |
| **5000CG50** | C-Gate Software, Fifty Network License |
| **5000CGUNL** | C-Gate Software, Unlimited Network License |

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control systems
home automation

# Universal Voltage Switches

EZinstall ULTI Family Switches are two-wire true retrofit design which enables direct replacement of standard mechanical electrical switches without additional cabling or rewiring. A built-in RF receiver enables direct remote control to switches with scene or individual circuit control feature. EZinstall ULTI Switches are available as 2kVA and 1kVA ratings and are compatible with incandescent and fluorescent lighting.

EZinstall ULTI Switches are available in a wide range of finishes and styles, and feature European design elegance. In addition, the units feature blue or amber LED O-ring backlight with easy-to-use push buttons for on/off switching. The switches can be controlled from any pre-programmed remote control units.

EZinstall ULTI Switches use British Standard electrical wall boxes making them simple to retrofit and install to complement any interior design.

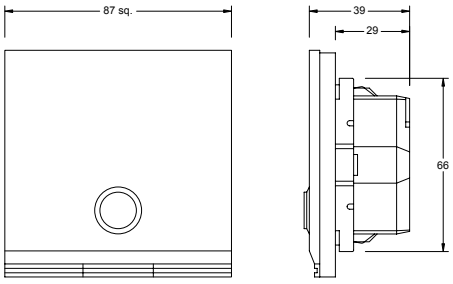
*U201SRY2KW CG1*

## TECHNICAL INFORMATION

| Catalogue Number | U201SRY2KW | U202SRY2KW |
|---|---|---|
| Line Voltage | 110-240VAC | |
| Line Frequency | 50Hz/60Hz | |
| Operating Frequency | 434MHz or 315MHz | |
| Compatible Loads | Low voltage halogen, incandescent and fluorescent lamps with power factor correction capacitor | |
| Memory Locations | Up to 8 remote controls may be associated with single dimmer device | |
| Backlit O-Ring | Amber or Blue, soft-key selectable | |
| Load Rating | 1kVA@110V/2kVA@220V | 2 x 500VA@110V/2 x 1kVA@220V |
| Minimum Load | 25W | |
| Mounting Centres | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 40mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |
| Compliance | IEC 60669-2-1 | |

## PRODUCT FEATURES

- Ultra-slim design with true changeable cover mechanism.
- 2-wire true retrofit design enables direct replacement.
- Fully compatible with British Standard wall boxes, no special mounting accessories required.
- Light touch buttons equipped with LED backlight, allow users to locate the switch in a dark environment.
- Tactile switch.
- Built-in RF receiver enables remote switching and dimming of light switches.
- Distributed intelligent configuration eliminates the requirement for central controllers, users are able to control lighting circuits on/off and lighting intensity locally as well as by remote control.
- Compliant with requirements of European Community Countries for Electromagnetic compliance.




*U201SRY2KW illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **U201SRY2KW 000** | 1 Gang 2000VA Switch, 100/240V, 50/60Hz, Module, Gift Box |
| **U202SRY2KW 000** | 2 Gang 2x1000VA Switch, 100/240V, 50/60Hz, Module, Gift Box |
| **U201SRY2KW 001** | 1 Gang 2000VA Switch, 100/240V, 50/60Hz, Module, Gift Box |
| **U202SRY2KW 001** | 2 Gang 2x1000VA Switch, 100/240V, 50/60Hz, Module, Gift Box |

**Frequency and Cover Selection:**

| Frequency | Gift Box | Project Pack |
|---|---|---|
| **434MHz** | **001** | **001 10X** |
| **315MHz** | **000** | **000 10X** |

**Universal Voltage Switches Without Cover:**

| | |
|---|---|
| **434MHz** | |
| **U201SRY2KW 001 10X** | 1 Gang 2000VA Switch, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202SRY2KW 001 10X** | 2 Gang 2x1000VA Switch, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **315MHz** | |
| **U201SRY2KW 000 10X** | 1 Gang 2000VA Switch, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202SRY2KW 000 10X** | 2 Gang 2x1000VA Switch, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| *Refer to Switch Cover Plates for Cover Selection* | |

**Décor Spacer Set**

| | |
|---|---|
| **UAX-001** | Décor Spacer Set for Switches and Dimmers Beginning with U2XXXXXXXX, 8mm & 15mm, Transparent Grey |

# Universal Dimmers
## EMC Compliant

EZinstall ULTI Family Universal Dimmers are two-wire true retrofit design which enables direct replacement of standard mechanical electrical switches without additional cabling or rewiring. A built-in RF receiver enables direct remote control to dimmers with scene or individual circuit control on/off feature. EZinstall ULTI Dimmers are available as 600W ratings, compatible with incandescent and low-voltage halogen lighting.

EZinstall ULTI Dimmers are available in a wide range of finishes and styles, and feature European design elegance. In addition, the units feature blue or amber LED O-ring backlight with easy-to-use push buttons for on/off switching and dimming. The dimmers can be controlled from any pre-programmed remote control units.

EZinstall ULTI Dimmers use British Standard electrical wall boxes making them simple to retrofit and install to complement any interior design.

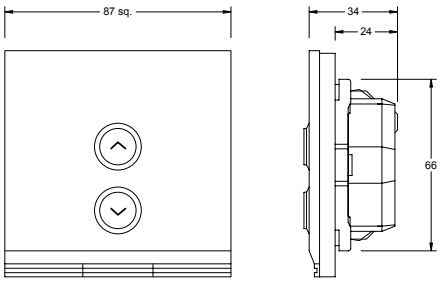
*U201DST600 PW1*

### TECHNICAL INFORMATION

| Catalogue Number | U201DST600 | U202DST600 |
|---|---|---|
| Line Voltage | 200-240VAC | |
| Line Frequency | 50Hz/60Hz | |
| Operating Frequency | 434MHz or 315MHz | |
| Compatible Loads | Low voltage halogen, incandescent lamps | |
| Memory Locations | Up to 8 remote controls may be associated with single dimmer device | |
| Backlit O-Ring | Amber or Blue, soft-key selectable | |
| Load Rating | 600W | 400W (Max. 600W per dimmer) |
| Minimum Load | 25W per channel | |
| Mounting Centres | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 35mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |
| Compliance | IEC 60669-2-1 | |

### PRODUCT FEATURES

- Ultra-slim design with true changeable cover mechanism.
- 2-wire true retrofit design enables direct replacement
- Fully compatible with British Standard wall boxes, no special mounting accessories required.
- Light touch buttons equipped with LED backlight, allow users to locate the switch in a dark environment.
- Tactile switch.
- Built-in RF receiver enables remote switching and dimming of light switches.
- Distributed intelligent configuration eliminates the requirement for central controllers, users are able to control lighting circuits on/off and lighting intensity locally as well as by remote control.
- Compliant with requirements of European Community Countries for Electromagnetic compliance.




*U201DST600 illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **U201DST600 000** | 1 Gang 600W Dimmer, 200/240V, 50/60Hz, Module, Gift Box |
| **U202DST600 000** | 2 Gang 2x300W Dimmer, 200/240V, 50/60Hz, Module, Gift Box |
| **U201DST600 001** | 1 Gang 600W Dimmer, 200/240V, 50/60Hz, Module, Gift Box |
| **U202DST600 001** | 2 Gang 2x300W Dimmer, 200/240V, 50/60Hz, Module, Gift Box |

**Frequency and Cover Selection:**

| Frequency | Gift Box | Project Pack |
|---|---|---|
| **434MHz** | **001** | **001 10X** |
| **315MHz** | **000** | **000 10X** |

**Universal Voltage Switches Without Cover:**

| | |
|---|---|
| **434MHz** | |
| **U201DST600 001 10X** | 1 Gang 600W Dimmer, 200/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202DST600 001 10X** | 2 Gang 2x300W Dimmer, 200/240V, 50/60Hz, Covers Ordered Separately (Box of 10) |
| **315MHz** | |
| **U201DST600 000 10X** | 1 Gang 600W Dimmer, 200/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202DST600 000 10X** | 2 Gang 2x300W Dimmer, 200/240V, 50/60Hz, Covers Ordered Separately (Box of 10) |
| *Refer to Dimmer Cover Plates for Cover Selection* | |

**Décor Spacer Set**

| | |
|---|---|
| **UAX-001** | Décor Spacer Set for Switches and Dimmers Beginning with U2XXXXXXXX, 8mm & 15mm, Transparent Grey |

# Fluorescent Dimmers

EZinstall ULTI Family Fluorescent Dimmers enable dimming control to analogue input ballast controlled lighting load. A built-in RF receiver enables direct remote control to dimmers with scene or individual circuit control on/off feature. EZinstall ULTI Fluorescent Dimmers are available as 5A ratings switch outputs, compatible with most of 0-10V or 1-10V analogue ballast for fluorescent, LED and HID light fittings.

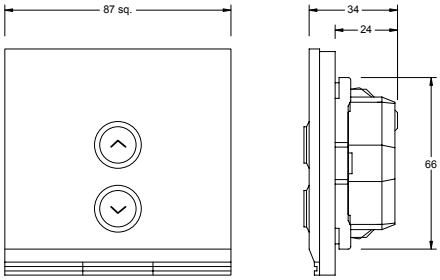
EZinstall ULTI Fluorescent Dimmers are available in a wide range of finishes and styles, and feature European design elegance. In addition, the units feature blue or amber LED O-ring backlight on the switch with easy-to-use push buttons for on/off switching and dimming. The fluorescent dimmers can be controlled from any pre-programmed remote control units.

EZinstall ULTI Fluorescent Dimmers use British Standard electrical wall boxes making them simple to retrofit and install to complement any interior design.

***U201DSF05A CG1***

## TECHNICAL INFORMATION

| Catalogue Number | U201DSF05A | U202DSF05A |
|---|---|---|
| Line Voltage | 200-240VAC | |
| Line Frequency | 50Hz/60Hz | |
| Operating Frequency | 434MHz or 315MHz | |
| Compatible Loads | Analogue signal input ballast with fluorescent, LED and HID lighting fitting | |
| Memory Locations | Up to 8 remote controls may be associated with single dimmer device | |
| Backlit O-Ring | Amber or Blue, soft-key selectable | |
| Load Rating | 5AX | 2 x 5AX |
| Analogue Output | 0-10V or 1-10V, soft key selectable (Max. of 10mA) | |
| Mounting Centres | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 35mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |
| Compliance | IEC 60669-2-1 | |




***U201DSF05A illustrated***

## PRODUCT FEATURES

- Ultra-slim design with true changeable cover mechanism.
- Fully compatible with British Standard wall boxes, no special mounting accessories required.
- Light touch buttons equipped with LED backlight, allow users to locate the switch in a dark environment.
- Tactile switch.
- Built-in RF receiver enables remote switching and dimming of light switches.
- Distributed intelligent configuration eliminates the requirement for central controllers, users are able to control lighting circuits on/off and lighting intensity locally as well as by remote control.
- Compliant with requirements of European Community Countries for Electromagnetic compliance.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **U201DSF05A 000** | 1 Gang, 5A Fluorescent Dimmer, 100/240V, 50/60Hz, Module, Gift Box |
| **U202DSF10A 000** | 2 Gang, 2x5A Fluorescent Dimmer, 100/240V, 50/60Hz, Module, Gift Box |
| **U201DSF05A 001** | 1 Gang, 5A Fluorescent Dimmer, 100/240V, 50/60Hz, Module, Gift Box |
| **U202DSF10A 001** | 2 Gang, 2x5A Fluorescent Dimmer, 100/240V, 50/60Hz, Module, Gift Box |

**Frequency and Cover Selection:**

| Frequency | Gift Box | Project Pack | |
|---|---|---|---|
| **434MHz** | **001** | **001 10X** | |
| **315MHz** | **000** | **000 10X** | |

**Fluorescent Dimmers Without Cover:**

| | |
|---|---|
| **434MHz** | |
| **U201DSF05A 001 10X** | 1 Gang, 5A Fluorescent Dimmer, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202DSF10A 001 10X** | 2 Gang, 2x5A Fluorescent Dimmer, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **315MHz** | |
| **U201DSF05A 000 10X** | 1 Gang, 5A Fluorescent Dimmer, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202DSF10A 000 10X** | 2 Gang, 2x5A Fluorescent Dimmer, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| *Refer to Dimmer Cover Plates for Cover Selection* | |

**Décor Spacer Set**

| | |
|---|---|
| **UAX-001** | Décor Spacer Set for Switches and Dimmers Beginning with U2XXXXXXXX, 8mm & 15mm, Transparent Grey |

# Lamp Dimmer

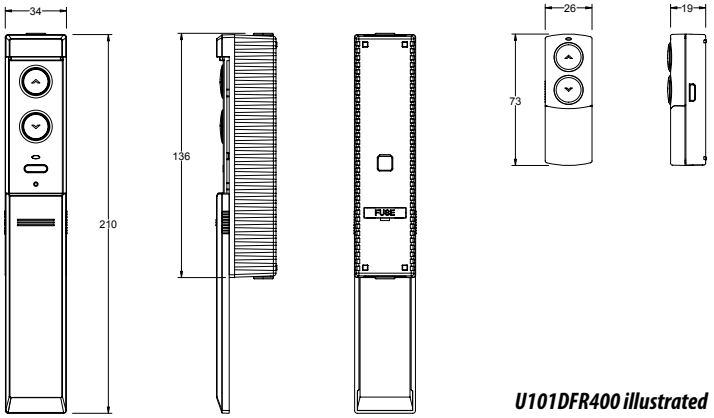
EZinstall ULTI Family Lamp Dimmers enable users to integrate floor and table lamps to form part of a total lighting solution. The dimmers are compatible with incandescent and low voltage halogen lighting products and can be controlled from a Clip-On Remote unit or any pre-programmed remote control.

*U101DFR400 XBL1*

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **U101DFR400 (Lamp Dimmer)** |
| Memory | **8 Remote Controller Units + 1 Clip-on Remote** |
| Control Functions | **Toggle On/Off, adjust lighting intensity** |
| Load Type | **Incandescent, LV halogen with magnetic transformer, LV halogen with dimmable electronic transformer** |
| Minimum Load | **25W** |
| Maximum Load | **400W** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **0 - 95%** |
| Line Voltage | **220-240VAC, +/- 10%** |
| Line Frequency | **Available in 50Hz +/- 1Hz & 60Hz +/- 1Hz** |
| Dimensions (Main unit without power cable) | **135mm(L) x 34mm(W) x 33mm(H)** |
| Receiver Frequency | **434MHz or 315MHz** |
| Net Weight | **225g** |
| Compliance | **Safety Standard of IEC 60669-2-1** |

| | |
|---|---|
| Catalogue Number | **U101DFR400 (Clip-On Remote)** |
| Battery Button | **Cell Battery CR2032** |
| Control Functions | **Toggle On/Off, adjust lighting intensity** |
| Remote Control Distance | **15m** |
| Operating Frequency | **434MHz or 315MHz** |
| Dimensions | **73mm(L) x 26mm(W) x 20mm(H)** |
| Net Weight | **20g (without battery)** |




*U101DFR400 illustrated*

## PRODUCT FEATURES

- Clip-on mechanism of Clip-On Remote unit enables users to clip remote unit onto the power cable for easy access.
- Built-in RF receiver enables remote switching and dimming.
- Distributed intelligent configuration eliminates the requirement for central controllers, users are able to control lighting circuits on/off and lighting intensity locally as well as by remote control.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **U101DFR400 XBL1** | Lamp Dimmer, 13A Socket with Clip-On Remote, 400W, 200/240V, 50/60Hz |
| **315MHz** | |
| **U101DFR400 XBL** | Lamp Dimmer 13A Socket, with Clip-On Remote, 400W, 200/240V, 50/60Hz |
| **U101DFR400 XBLC** | Lamp Dimmer China Socket, with Clip-On Remote, 400W, 200/240V, 50/60Hz |

# Double Pole Switches

EZinstall ULTI Family Double Pole Switches are true retrofit design which enables direct replacement of standard mechanical electrical switches without additional cabling or rewiring. A built-in RF receiver enables direct remote control to switches with scene or individual circuit control feature. EZinstall ULTI Double Pole Switches are available as 16A and 5A ratings, compatible with any resistive and inductive loading.

EZinstall ULTI Double Pole Switches are available in a wide range of finishes and styles, and feature European design elegance. In addition, the units feature software key selectable blue or amber LED O-ring backlight with easy-to-use push buttons for on/off switching. The Double Pole Switches can be controlled from any pre-programmed remote control units.

EZinstall ULTI switches use British Standard electrical wall boxes making them simple to retrofit and install to complement any interior design.

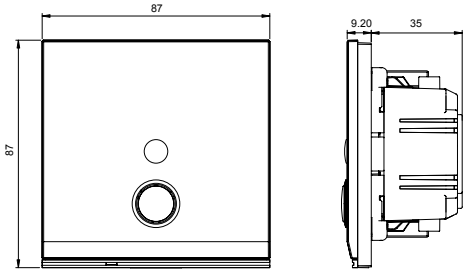
*U201SDP16A*

## TECHNICAL INFORMATION

| Catalogue Number | U201DSP16A | U202DSP10A |
|---|---|---|
| Line Voltage | 200-240VAC | |
| Line Frequency | 50/60Hz | |
| Operating Frequency | 434MHz or 315MHz | |
| Compatible Loads | Any resistive or inductive load | |
| Memory Locations | Up to 8 remote controls may be associated with single dimmer device | |
| Backlit O-Ring | Amber or Blue, soft-key selectable | |
| Load Rating | 3600VA | 2 x 1000VA |
| Minimum Load | N/A | |
| Mounting Centres | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 46mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |
| Compliance | IEC 60669-2-1 | |

## PRODUCT FEATURES

- Ultra-slim design with true changeable cover mechanism.
- True retrofit design enables direct replacement.
- Fully compatible with British Standard wall boxes, no special mounting accessories required.
- Light touch buttons equipped with LED backlight, allow users to locate the switch in a dark environment.
- Red status indicator.
- Tactile switch.
- Built-in RF receiver enables remote switching and dimming of light switches.
- Distributed intelligent configuration eliminates the requirement for central controllers, users are able to control lighting circuits on/off and lighting intensity locally as well as by remote control.
- Compliant with requirements of European Communicty Countries for Electromagnetic compliance.




*U201SDP16A illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **U201SDP16A 000** | 1 Gang 3600VA Double Pole Switch, with Pilot Light, 200/240V, 50/60Hz, Module, Gift Box |
| **U202SDP10A 000** | 2 Gang 2x1100VA Double Pole Switch, with Pilot Light, 200/240V, 50/60Hz, Module, Gift Box |
| **U201SDP16A 001** | 1 Gang 3600VA Double Pole Switch, with Pilot Light, 200/240V, 50/60Hz, Module, Gift Box |
| **U202SDP10A 001** | 2 Gang 2x1100VA Double Pole Switch, with Pilot Light, 200/240V, 50/60Hz, Module, Gift Box |

**Frequency and Cover Selection:**

| Frequency | Gift Box | Project Pack | |
|---|---|---|---|
| **434MHz** | **001** | **001 10X** | |
| **315MHz** | **000** | **000 10X** | |

**Double Pole Switches Without Cover:**

| | |
|---|---|
| **434MHz** | |
| **U201SDP16A 001 10X** | 1 Gang 3600VA Double Pole Switch, with Pilot Light, 200/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202SDP10A 001 10X** | 2 Gang 2x1100VA Double Pole Switch, with Pilot Light, 200/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **315MHz** | |
| **U201SDP16A 000 10X** | 1 Gang 3600VA Double Pole Switch, with Pilot Light, 200/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202SDP10A 000 10X** | 2 Gang 2x1100VA Double Pole Switch, with Pilot Light, 200/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |

*Refer to Double Pole Switch Cover Plates for Cover Selection*

**Décor Spacer Set**

| | |
|---|---|
| **UAX-001** | Décor Spacer Set for Switches and Dimmers Beginning with U2XXXXXXXX, 8mm & 15mm, Transparent Grey |

# Curtain Switches

EZinstall ULTI Family Curtain Switches are designed to enable a three position control for curtain motors (open, close and stop). A built-in RF receiver enables direct remote control to motors with scene or individual circuit control on/off feature. EZinstall ULTI Curtain Switches are available as 300VA ratings (dry contact output), compatible with most low voltage and extra low voltage controlled curtain motors.

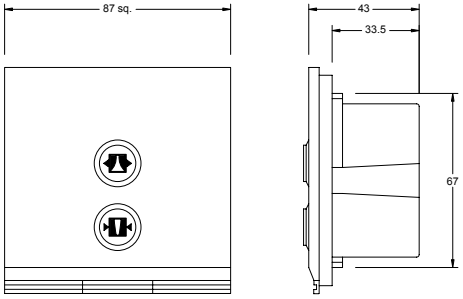
EZinstall ULTI Curtain Switches are available in a wide range of finishes and styles, and feature European design elegance. In addition, the units feature blue or amber LED O-ring backlight with easy-to-use push buttons. The Curtain Switches can be controlled from any pre-programmed remote control units.

EZinstall ULTI Curtain Switches use British Standard electrical wall boxes making them simple to retrofit and install to complement any interior design.

***U201SCN02A***

## TECHNICAL INFORMATION

| Catalogue Number | U201SCN02A | U202SCN04A |
|---|---|---|
| Line Voltage | 100-240VAC | |
| Line Frequency | 50/60Hz | |
| Operating Frequency | 434MHz or 315MHz | |
| Compatible Loads | Any motor load | |
| Memory Locations | Up to 8 remote controls may be associated with single dimmer device | |
| Backlit O-Ring | Amber or Blue, soft-key selectable | |
| Load Rating | 300VA | 2 x 300VA |
| Minimum Load | N/A | |
| Mounting Centres | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 44mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |
| Compliance | IEC 60669-2-1 | |




***U201SCN02A illustrated***

## PRODUCT FEATURES

- Ultra-slim design with true changeable cover mechanism.
- Fully compatible with British Standard wall boxes, no special mounting accessories required.
- Light touch buttons equipped with LED backlight, allow users to locate the switch in a dark environment.
- Automatic load cut-off after 1 minute.
- Tactile switch.
- Built-in RF receiver enables remote switching functions.
- Compliant with requirements of European Communicty Countries for Electromagnetic compliance.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **U201SCN02A 000** | 1 Gang 300VA Curtain Switch, 100/240V, 50/60Hz, Module, Gift Box |
| **U202SCN04A 000** | 2 Gang 2x300VA Curtain Switch, 100/240V, 50/60Hz, Module, Gift Box |
| **U201SCN02A 001** | 1 Gang 300VA Curtain Switch, 100/240V, 50/60Hz, Module, Gift Box |
| **U202SCN04A 001** | 2 Gang 2x300VA Curtain Switch, 100/240V, 50/60Hz, Module, Gift Box |

**Frequency and Cover Selection**

| Frequency | Gift Box | Project Pack |
|---|---|---|
| **434MHz** | **001** | **001 10X** |
| **315MHz** | **000** | **000 10X** |

**Curtain Switches Without Cover**

| | |
|---|---|
| **434MHz** | |
| **U201SCN02A 001 10X** | 1 Gang 300VA Curtain Switch, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202SCN04A 001 10X** | 2 Gang 2x300VA Curtain Switch, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **315MHz** | |
| **U201SCN02A 000 10X** | 1 Gang 300VA Curtain Switch, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |
| **U202SCN04A 000 10X** | 2 Gang 2x300VA Curtain Switch, 100/240V, 50/60Hz, Cover Ordered Separately (Box of 10) |

*Refer to Curtain Switch Cover Plates for Cover Selection*

**Décor Spacer Set**

| | |
|---|---|
| **UAX-001** | Décor Spacer Set for Switches and Dimmers Beginning with U2XXXXXXXX, 8mm & 15mm, Transparent Grey |

# FreeLocate Switches

EZinstall ULTI Family FreeLocate Switches are battery powered Radio Frequency (RF) transmitters for remote switching of lighting scenes or devices. FreeLocate switches can be fixed at any location within the premises and can be used for multi-way switching and scene control.

FreeLocate switches operate with EZinstall ULTI switches and dimmers. By maintaining the unique aesthetics of the ULTI Family, the FreeLocate switches easily complements the EZinstall ULTI Family range of switches and dimmers.

FreeLocate Switches increase the flexibility of locating switches, and is also a cost-effective means of implementing multi-way switching.

*U106RWM001 XGL1*

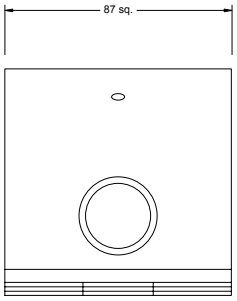
## TECHNICAL INFORMATION

| Catalogue Number | U101RWM001 | U102RWM001 | U106RWM001 |
|---|---|---|---|
| Scenes/Device Setting | 2 Scenes or 1 device | 2 Scenes or devices | 5 scenes or devices |
| Delay activitated scenes | 2 | N/A | |
| Programmable Delay Setting | 15, 30 or 45 seconds | N/A | |
| All Off Button | N/A | | Yes |
| Battery Type | 3V, CR2032 | | |
| Operating Frequency | 434MHz or 315MHz | | |
| Memory Locations | Any number of EZinstall ULTI switches and dimmers may be associated with single freelocate switch | | |
| Operating Range | 60m (open space) | | |
| Mounting Centres | 60.3mm | | |
| Dimensions | Plastic: 87mm(H) x 87mm(W) x 10.5mm(D)<br>Glass: 87mm(H) x 87mm(W) x 12mm(D) | | |
| Operating Temperature Range | 0˚C to 40˚C | | |
| Operating Humidity Range | 0 - 95% RH | | |

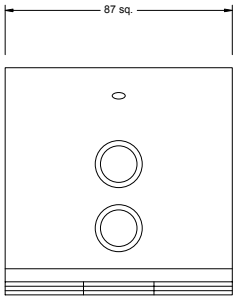
***Note:*** *The performance of the operating range is subject to the testing conditions. Normally, longer range can achieved outdoors than indoors since obstacles like walls and metal shelves may shorten the operating range.*

## PRODUCT FEATURES

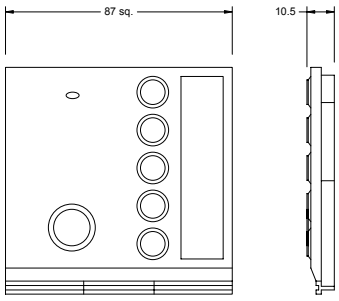
- Detachable for free moving control application.
- LED indicator for transmission and low power status indication.
- Control infinite number of EZinstall switches and dimmers.
- Pre-printed labels for unit and function identification.
- Compliant with requirements of European Community Countries for Electromagnetic compliance.




*U101RWM001 illustrated*




*U102RWM001 illustrated*




*U106RWM001 illustrated*

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| U101RWM001 | 1-Key FreeLocate Switch, 2+2 Scenes, Battery Operated, without Glass Cover |
| U102RWM001 | 2-Key FreeLocate Switch, 2 Scenes, Battery Operated |
| U106RWM001 | 6-Key FreeLocate Switch, 5 Scenes, Battery Operated |

**Frequency and Cover Selection:**

| Frequency | Brushed Silver | Pearl White | Champagne Gold | Crystal Glass |
|---|---|---|---|---|
| 434MHz | XBS1 | XPW1 | XCG1 | XGL1 |
| 315MHz | XBS | XPW | XCG | XGL |

** Crystal Glass cover is available for U102RWM001 & U106RWM001 units only.*

**Switch Bracket**

| | |
|---|---|
| UAX-003 | FreeLocate Switch Bracket, Lockable, Black |
| UAX-001 | Décor Spacer Set for Switches and Dimmers Beginning with U2XXXXXXXX, 8mm & 15mm, Transparent Grey |
| UAX-004 | 0.47µF Capacitor for Switches and Dimmers Beginning with U2XXXXXXXX |

# Remote Controls

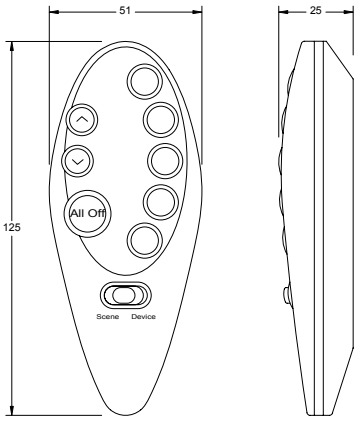
EZinstall ULTI Family Handheld Remote Controls are battery powered Radio Frequency (RF) transmitters for remote switching of lighting scenes or devices. These remote control units can be preset to switch devices or scenes. Each unit can accomodate up to 5 different scenes and devices (model dependent). It is also equipped with and "All Off" button for master switching.

The remote control operates with EZinstall ULTI switches and dimmers.

## TECHNICAL INFORMATION

| Catalogue Number | U103RHH001 | U105RHH001 |
|---|---|---|
| Scenes/Device Setting | 3 Scenes | 5 Scenes & devices |
| Master Scene Button | Yes | N/A |
| Master Dimming | Yes | |
| All Off Button | Yes | |
| Battery Type | 2 x 1.5V AA | |
| Operating Frequency | 434MHz or 315MHz | |
| Memory Locations | Any number of EZinstall ULTI switches and dimmers may be associated with single remote control | |
| Operating Range | 60m (open space) | |
| Dimensions | 125mm(H) x 51mm(W) x 25mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |

***Note:*** *The performance of the operating range is subject to the testing conditions. Normally, longer range can achieved outdoors than indoors since obstacles like walls and metal shelves may shorten the operating range.*




***U105RHH001 illustrated***

***U105RHH001 BPW1***

## PRODUCT FEATURES

- Selectable scenes and device control function for ease of operation.
- LED indicator indicates transmission and low power status.
- Controls an infinite number of EZinstall ULTI switches and dimmers.
- Pre-printed labels for unit and function identification.
- Compliant with the requirements of European Community Countries for Electromagnetic compliance.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **U103RHH001 BPW1** | 3-Key Hand Held Remote Control, Battery Operated, Pearl White |
| **U105RHH001 BPW1** | 5-Key Hand Held Remote Control, Battery Operated, Pearl White |
| | |
| **315MHz** | |
| **U103RHH001 BPW** | 3-Key Hand Held Remote Control, Battery Operated, Pearl White |
| **U105RHH001 BPW1** | 5-Key Hand Held Remote Control, Battery Operated, Pearl White |

# Repeater

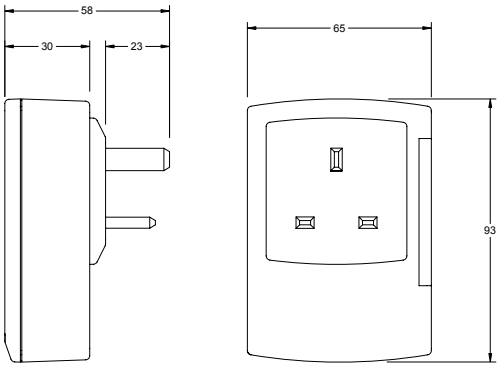
*U10XARR001*

EZinstall ULTI Repeater is used in conjuntion with EZinstall ULTI Family of RF switches, dimmers and remote controls. The repeater is a plug-in type design RF signal extension unit used to repeat the effective RF coverage range of Remote Controls and FreeLocate switches. A maximum of 5 units can be installed within one premise.

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **U10XARR001** |
| Line Voltage | **200-240VAC** |
| Line Frequency | **50/60Hz** |
| Operating Frequency | **434MHz or 315MHz** |
| Memory Locations | **8 numbers of remote units** |
| Connection Plug | **BS13A** |
| Dimensions | **65mm(W) x 93mm(H) x 58.2mm(D)** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **0 - 95% RH** |
| Compliance | **IEC 60669-2-1** |

***Note:*** *The performance of the operating range is subject to the testing conditions. Normally, longer range can achieved outdoors than indoors since obstacles like walls and metal shelves may shorten the operating range.*




***U10XARR001 201 illustrated***

## PRODUCT FEATURES

- Built-in RF signal receiver and transmitter extend RF signal coverage range of remote unit and FreeLocate switches.
- Plug-in unit design simplifies installation effort.
- 220VAC operated, fit into standard 13A British Standard wall socket power outlet.
- LED indicator indicates RF signals status of the unit.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **U10XARR001 201** | Repeater British Standard 13A Socket, RF, 220/240V, 50/60Hz, Pearl White |
| **315MHz** | |
| **U10XARR001 200** | Repeater British Standard 13A Socket, RF, 220/240V, 50/60Hz, Pearl White |
| **U10XARR001 210** | Repeater China Socket, RF, 220/240V, 50/60Hz, Pearl White |

# Serial Interface

*U10NRSI002*

EZinstall Serial Interface is an extra low voltage RF remote unit used to enable remote control to EZinstall switches and dimmers via other automation systems and/or personal computer. The Serial Interface commands include both scenes and individual circuit control to EZinstall product range.

EZinstall Serial Interface can be easily integrated with Clipsal MinderPRO, Clipsal PremiseGateway™ and most industrial standard products with serial interface provision to form a complete automation system.

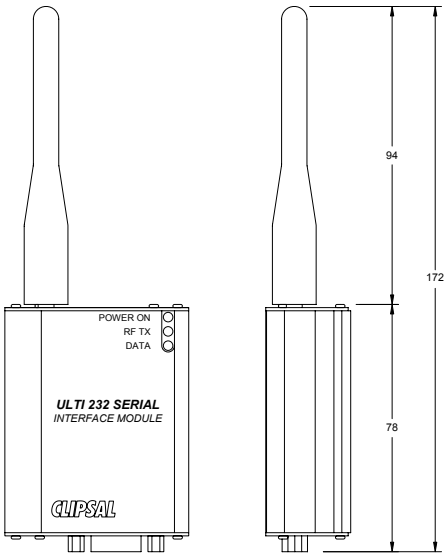
## TECHNICAL INFORMATION

| Catalogue Number | U10NRSI001 | U10NRSI002 |
|---|---|---|
| Serial Connection | Clipsal MinderPRO | DB9 serial male |
| Line Voltage | 5-12VDC | |
| Operating Frequency | 434MHz or 315MHz | |
| Scene/Device Command | 40/40 (8 remote ID x 5 scene/device) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |

***Note:*** *The performance of the operating range is subject to the testing conditions. Normally, longer range can achieved outdoors than indoors since obstacles like walls and metal shelves may shorten the operating range.*

## PRODUCT FEATURES

- Built-in RF signal transmitter faciliate remote control through Clipsal MinderPRO or third party automation system.
- Mounting Bracket simplifies installation effort.
- LED indicator indicates RF signals status of the unit.




***U10NRSI002 XX1 illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **434MHz** | |
| **U10NRSI001 XX1** | RS232 Serial Interface Unit (Clipsal MinderPRO Compatible) |
| **U10NRSI002 XX1** | RS232 Serial Interface Unit DB9 with Housing |
| | |
| **315MHz** | |
| **U10NRS1001 XX0** | RS232 Serial Interface Unit (Clipsal MinderPRO Compatible) |
| **U10NRS1002 XX0** | RS232 Serial Interface Unit DB9 with Housing |

# Switch Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UC21SW | 1 Gang Switch Cover Plate |
| UC22SW | 2 Gang Switch Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

*UC21SW 201*

# Dimmer Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UC21DM | 1 Gang Dimmer Cover Plate |
| UC22DM | 2 Gang Dimmer Cover Plate |

**Suitable for EMC Compliant and Fluorescent Dimmer Modules.*

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

*UC21DM 201*

# Double Pole Switch Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UC21DP | 1 Gang Double Pole Switch Cover Plate |
| UC22DP | 2 Gang Double Pole Switch Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

*UC21DP 201*

# Curtain Switch Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UC21CN | 1 Gang Curtain Switch Cover Plate |
| UC22CN | 2 Gang Curtain Switch Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

*UC21CN 201*

# ULTI i.m.press™

The patent pending impress.mechanism represents a technological breakthrough with a button travel distance as little as 1.8mm. Pushing the button is almost effortless. Switches stay in the uniform position and can be swiftly and surely operated with a simple motion. The dolly maintains the same position whether on or off. For the first time, impress Mechanism sets free switch design for the utmost beauty and enables s flush-faced mechanical switch with a 250V rating.

## TECHNICAL INFORMATION

| | 1-Gang Switch | 2-Gang Switch | 3-Gang Switch |
|---|---|---|---|
| Operation | **Press Button** | | |
| Rating | **16AX** | | |
| Operating Temperature | **0˚C to + 40˚C** | | |
| Operating Humidity | **0% to 95%** | | |
| Operating Voltage & Frequency | **250V a.c., 50/60Hz** | | |
| Cable Size | **2.5mm to 4.0mm** | | |
| Mounting Centres | **60.3mm** | | |
| Dimensions (H) x (W) x (D) | **87mm x 87mm x 35mm** | | |

## PRODUCT FEATURES

- Light-touch style push button design.
- Backlight behind the switch, easy to locate the switch in dark environment.
- LED indicator for illumination, 20 times longer life than traditional neon lamp indicator
- Modern outlook match with product range of the ULTi switches.
- Choice of crystal glass, Plastic, Metal panel cover combinations.
- Panel cover can be easily installed and released by actuating the lock button mechanism.
- Strong and rigid metal plate to support mounting.
- Adaptable to the ULTi 8mm and 15mm thick spacer for mounting.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Switches** | |
| **U201SPM/1** | 1-Gang 250V 16AX 1-way i.press.™ Switch Module |
| **U202SPM/1** | 2-Gang 250V 16AX 1-way i.press.™ Switch Module |
| **U204SPM/1** | 4-Gang 250V 16AX 1-way i.press.™ Switch Module |
| **U201SPM/2** | 1-Gang 250V 16AX 2-way i.press.™ Switch Module |
| **U202SPM/2** | 2-Gang 250V 16AX 2-way i.press.™ Switch Module |
| **U204SPM/2** | 4-Gang 250V 16AX 2-way i.press.™ Switch Module |
| **Double Pole Switches** | |
| **U201SPM/DP** | 1-Gang 250V 20A Double Pole i.m.press™ Switch Module |
| **Switches A-Format** | |
| **U201SPM/1** | 1-Gang 250V 16AX 1 way i.m.press™ Switch Module, A-Format |
| **U202SPM/1** | 2-Gang 250V 16AX 1 way i.m.press™ Switch Module, A-Format |
| **U204SPM/1** | 4-Gang 250V 16AX 1 way i.m.press™ Switch Module, A-Format |
| **U201SPM/2** | 1-Gang 250V 16AX 2 way i.m.press™ Switch Module, A-Format |
| **U202SPM/2** | 2-Gang 250V 16AX 2 way i.m.press™ Switch Module, A-Format |
| **U204SPM/2** | 4-Gang 250V 16AX 2 way i.m.press™ Switch Module, A-Format |

**LED Selection :**

| | |
|---|---|
| **A00** | **B00** |
| **Amber** | **Blue** |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

# i.m.press™ Switch Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UC21SWP/P | 1 Gang i.m.press™ Switch Cover Plate |
| UC22SWP/P | 2 Gang i.m.press™ Switch Cover Plate |
| UC24SWP/P | 4 Gang i.m.press™ Switch Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

# Double Pole i.m.press™ Switch Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UC21D/P | 1 Gang Double Pole i.m.press™ Switch Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

# i.m.press™ Switch Cover Plates, A-Format

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UAC21SW/P | 1 Gang i.m.press™ Switch Cover Plate, A-Format |
| UAC22SW/P | 2 Gang i.m.press™ Switch Cover Plate, A-Format |
| UAC24SW/P | 4 Gang i.m.press™ Switch Cover Plate, A-Format |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

# NEO-X Switches

NEO-X Switches are two-wire true retrofit design which enables direct replacement of standard mechanical electrical switches without additional cabling or rewiring. A built-in RF receiver enables direct remote control to switches with scene or individual circuit control feature. Equipped with wireless C-Bus engine and operated with 1-way control topologies, NEO-X Switches are compliant with incandescent, fluorescent lighting, energy saving lamp and motor operation.

NEO-X Switches styles, and feature contemporary and sleek design. In addition, the units feature blue LED backlight with easy-to-push buttons for on/off switching. The switches use British Standard electrical wall boxes making them simple to retrofit and install to complement any interior design.

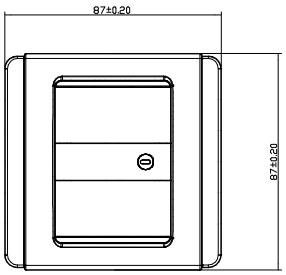
***E3851R8F1EC GB***

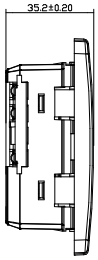
## TECHNICAL INFORMATION

| Description | 1 Gang Switch | 2 Gang Switch |
|---|---|---|
| Safety Compliance | **IEC 60669-2-1 / EMC compliance** | |
| Memory | **4 Remote Control Units** | |
| LED Backlight | **Blue color** | |
| Minimum Load | **25W** | **25W in either channel** |
| Load Rating | **2kVA** | |
| Operating Temperature | **0°C to 40°C** | |
| Operating Humidity | **0 to 95%** | |
| Operating Voltage & Frequency | **220V ~ 240V AC, 50/60Hz** | |
| Radio Frequency | **315MHz /434MHz** | |
| Mounting Center | **60.3mm** | |
| Dimensions | **87mm (H) x 87 mm (W) x 36mm (D)** | |

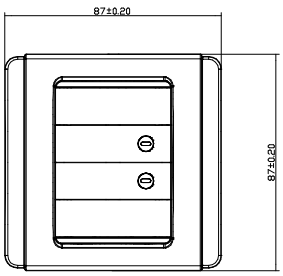
## PRODUCT FEATURES

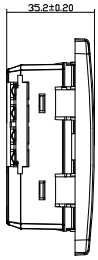
- Sleek and contemporary design
- 2-wire true retrofit design enables direct replacement
- Fully compatible with British Standard wall boxes, no special mounting accessories required.
- Light touch buttons equipped with LED backlight, allow users to locate the switch in a dark environment.
- Tactile switch.
- Built-in RF receiver enables remote switching and dimming of light switches.
- Distributed intelligent configuration eliminates the requirement for central controllers, users are able to control lighting circuits on/off and lighting intensity locally as well as by remote control unit.




***E3851R8F1EC illustrated***




***E3852R4F2EC illustrated***

| CATALOGUE NUMBER | DESCRIPTION | |
|---|---|---|
| **E3851R8F1EA GB** | NEO-X, 2-Wire, Wireless Wall Switch, 1 Gang, Relay, 2000VA, 434MHz, Grey | |
| **E3851R8F1EA WE** | NEO-X, 2-Wire, Wireless Wall Switch, 1 Gang, Relay, 2000VA, 434MHz, White | |
| **E3851R8F1EC GB** | NEO-X, 2-Wire, Wireless Wall Switch, 1 Gang, Relay, 2000VA, 315MHz, Grey | (coming soon) |
| **E3851R8F1EC WE** | NEO-X, 2-Wire, Wireless Wall Switch, 1 Gang, Relay, 2000VA, 315MHz, White | (coming soon) |
| **E3852R4F2EA GB** | NEO-X, 2-Wire, Wireless Wall Switch, 2 Gang, Relay, 2000VA, 434MHz, Grey | |
| **E3852R4F2EA WE** | NEO-X, 2-Wire, Wireless Wall Switch, 2 Gang, Relay, 2000VA, 434MHz, White | |
| **E3852R4F2EC GB** | NEO-X, 2-Wire, Wireless Wall Switch, 2 Gang, Relay, 2000VA, 315MHz, Grey | (coming soon) |
| **E3852R4F2EC WE** | NEO-X, 2-Wire, Wireless Wall Switch, 2 Gang, Relay, 2000VA, 315MHz, White | (coming soon) |

*NEO-X is operated with standalone independent 1-way control topologies for retrofitabe wireless control application. It is not compatible with current C-Bus and Wireless C-Bus System.

# NEO-X Leading Edge Dimmer

NEO-X Leading Edge Dimmer are two-wire true retrofit design which enables direct replacement of standard mechanical electrical switches without additional cabling or rewiring. A built-in RF receiver enables direct remote control to Dimmers with scene or individual circuit control on / off feature. Equipped with wireless C-Bus engine and operated with 1-way control topologies, NEO-X Dimmers are compatible with incandescent and low-voltage halogen lighting.

NEO-X dimmers are available in a wide range of finishes and styles, and feature contemporary design style. In addition, the units feature blue LED backlight with easy-to-use push buttons for on/off switching and dimming. The dimmers can be controlled from any NEO-X remote control unit. Gives you one-touch scene control convenience.

NEO-X Dimmers use British Standard electrical wall boxes making them simple to retrofit and install to complement any interior design.

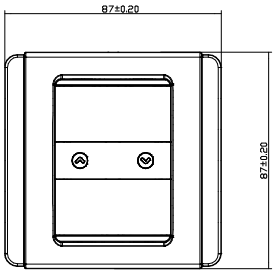
***E3852D2L1EC***

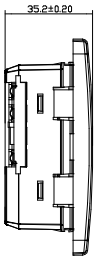
## TECHNICAL INFORMATION

| Description | 1 Gang 500VA<br>NEO-X Leading Edge Dimmer | 2 Gang 2 X 250VA<br>NEO-X Leading Edge Dimmer |
|---|---|---|
| Safety & EMC Compliance | **IEC 60669-2-1 / EMC compliance** | |
| Memory | **4 Remote Control Units** | |
| LED Backlight | **Blue color** | |
| Minimum Load | **25VA** | **25VA in either Channel** |
| Load Rating | **500VA** | **500VA (Total)** |
| Operating Temperature | **0°C to 40°C** | |
| Operating Humidity | **0 to 95%** | |
| Operating Voltage & Frequency | **220V ~ 240V AC, 50Hz** | |
| Radio Frequency | **315MHz / 434MHZ** | |
| Mounting Center | **60.3mm** | |
| Dimensions | **87mm (H) x 87 mm (W) x 36mm (D)** | |

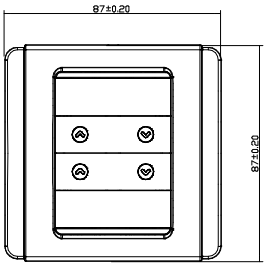
## PRODUCT FEATURES

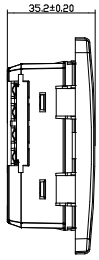
- Sleek and contemporary design
- 2-wire true retrofit design enables direct replacement
- Fully compatible with British Standard wall boxes, no special mounting accessories required.
- Light touch buttons equipped with LED backlight, allow users to locate the switch in a dark environment.
- Tactile switch.
- Built-in RF receiver enables remote switching and dimming of light switches.
- Distributed intelligent configuration eliminates the requirement for central controllers, users are able to control lighting circuits on/off and lighting intensity locally as well as by remote control Unit.




***E3852D2L1EC illustrated***




***E3852D2L2EC illustrated***

| CATALOGUE NUMBER | DESCRIPTION | |
|---|---|---|
| **E3852D2L1EA GB** | NEO-X, 2-Wire, 1 Gang, Leading Edge Dimmer, 500VA, 434MHz, Grey | |
| **E3852D2L1EA WE** | NEO-X, 2-Wire, 1 Gang, Leading Edge Dimmer, 500VA, 434MHz, White | |
| **E3852D2L1EC GB** | NEO-X, 2-Wire, 1 Gang, Leading Edge Dimmer, 500VA, 315MHz, Grey | (coming soon) |
| **E3852D2L1EC WE** | NEO-X, 2-Wire, 1 Gang, Leading Edge Dimmer, 500VA, 315MHz, White | (coming soon) |
| **E3852D1L2EA GB** | NEO-X, 2-Wire, 2 Gang, Leading Edge Dimmer, 500VA, 434MHz, Grey | |
| **E3852D1L2EA WE** | NEO-X, 2-Wire, 2 Gang, Leading Edge Dimmer, 500VA, 434MHz, White | |
| **E3852D1L2EC GB** | NEO-X, 2-Wire, 2 Gang, Leading Edge Dimmer, 500VA, 315MHz, Grey | (coming soon) |
| **E3852D1L2EC WE** | NEO-X, 2-Wire, 2 Gang, Leading Edge Dimmer, 500VA, 315MHz, White | (coming soon) |



*NEO-X is operated with standalone independent 1-way control topologies for retrofitabe wireless control application. It is not compatible with current C-Bus and Wireless C-Bus System.

# NEO-X FreeLocate Switches

NEO-X, FreeLocate Switches are battery powered Radio Frequency (RF) transmitters for remote switching of lighting scenes or devices. Equipped with wireless C-Bus engine and operated with 1-way control topologiles, the NEO-X FreeLocate Switches can be fixed at any location within the premises and can be used for multi-way switching and scene control.

NEO-X FreeLocate Switches operate with NEO-X switches and dimmers. By maintaining the unique aesthetics of the NEO family, the NEO-X FreeLocate Switches easily complement the NEO Family of switches and dimmers.

NEO-X FreeLocate Switches increase the flexibility of locating switches, and is also a cost-effective means of implementing multi-way switching.

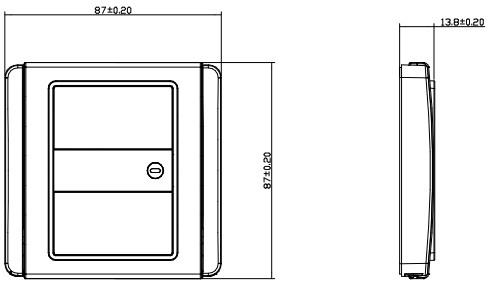
*E3851WTXBC GB*

## TECHNICAL INFORMATION

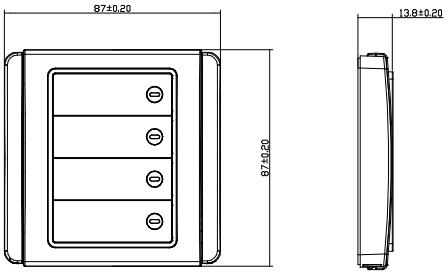
| Description | 1-Key Freelocate Switch | 4-Key Freelocate Switch |
|---|---|---|
| Memory | 1 scene / all off or 1 device | 4 scenes or 4 devices |
| Battery Type | CR2032 button cell battery | |
| Operating Temperature | 0°C to 40°C | |
| Operating Humidity | 0 to 95% | |
| Radio Frequency | 315MHz / 434MHz | |
| Operating Range | 60m (Open environment)* | |
| Dimensions | 87mmx87mmx14mm | |

## PRODUCT FEATURES

- Detachable for free moving control application
- LED indicator for transmission and low power status indication
- Control an infinite number of NEO-X switches and dimmers.




*E3851WTXBC illustrated*




*E3854WTXBC illustrated*

| CATALOGUE NUMBER | DESCRIPTION | |
|---|---|---|
| **E3851WTXBA GB** | NEO-X, Wireless, Wall Mount Remote Control Unit, 1-Key, 434MHz, Grey | |
| **E3851WTXBA WE** | NEO-X, Wireless, Wall Mount Remote Control Unit, 1-Key, 434MHz, White | |
| **E3851WTXBC GB** | NEO-X, Wireless, Wall Mount Remote Control Unit, 1-Key, 315MHz, Grey | (coming soon) |
| **E3851WTXBC WE** | NEO-X, Wireless, Wall Mount Remote Control Unit, 1-Key, 315MHz, White | (coming soon) |
| **E3854WTXBA GB** | NEO-X, Wireless, Wall Mount Remote Control Unit, 4-Key, 434MHz, Grey | |
| **E3854WTXBA WE** | NEO-X, Wireless, Wall Mount Remote Control Unit, 4-Key, 434MHz, White | |
| **E3854WTXBC GB** | NEO-X, Wireless, Wall Mount Remote Control Unit, 4-Key, 315MHz, Grey | (coming soon) |
| **E3854WTXBC WE** | NEO-X, Wireless, Wall Mount Remote Control Unit, 4-Key, 315MHz, White | (coming soon) |

*NEO-X is operated with standalone independent 1-way control topologies for retrofitabe wireless control application. It is not compatible with current C-Bus and Wireless C-Bus System.

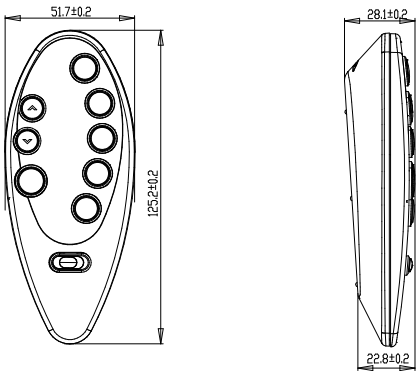
# NEO-X Hand-Held Remote Control Unit

NEO-X Handheld Remote Controls are battery powered Radio Frequency (RF) transmitters for remote switching for lighting scenes or devices. Equipped with wireless C-bus engine and operated with 1-way control topologies, these remote control unit can be preset to switch devices or scenes. Each unit can accommodate up to 5 different scenes and devices. It is also equipped with and "All Off" button for master switching.

The remote control operates with NEO-X switches and dimmers.

## TECHNICAL INFORMATION

| | |
|---|---|
| Description | **Hand-Held Remote Control Unit** |
| Memory | **5 scenes or 5 devices, Master Dim Up/Down and All-Off** |
| Battery Type | **2 x AAA batteries** |
| Operating Temperature | **0°C to 40°C** |
| Operating Humidity | **0 to 95%** |
| Radio Frequency | **315MHz / 434MHZ** |
| Operating Range | **60m (Open environment)*** |
| Dimensions | **125mmx51mmx25mm** |




***3855TXBC illustrated***

***3855TXBC GB***

## PRODUCT FEATURES

- Selectable scenes and device control function for easy operation.
- LED indicator indicates transmission and lower power status.
- Control an infinite number of NEO-X switches and dimmers.
- Pre-printed labels for unit and function identification.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **3855TXBA GB** | Neo-X, Wireless, 5 Scene Hand-Held Remote Control Unit, 434MHz |
| **3855TXBC GB** | Neo-X, Wireless, 5 Scene Hand-Held Remote Control Unit, 315MHz (coming soon) |

*NEO-X is operated with standalone independent 1-way control topologies for retrofitabe wireless control application. It is not compatible with current C-Bus and Wireless C-Bus System.

# Bedside Console

The ULTI Bedside Console communicates with the ULTI series hotel room control units via radio frequency (RF) to provide a complete guest room control solution. The Beside Console with customised icons enables scene setting, individual circuit on/off control and toggle operations.

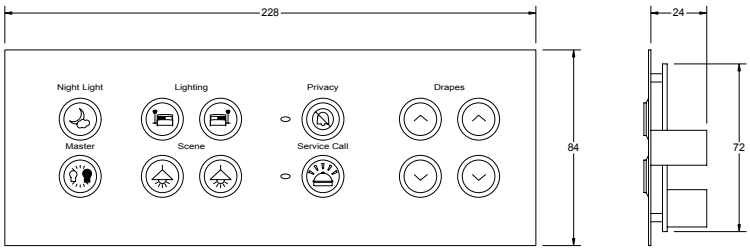
Each unit features illuminate LED O-ring backlight buttons with an automatic time delay off feature to reduce any unnecessary disturbances to the guests. In addition, the bedside console's easy-to-use push buttons can be customised to perform various in room functions such as on/off switching, dimming and curtain control.

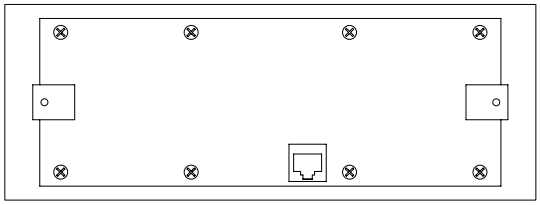
## TECHNICAL INFORMATION

| | |
|---|---|
| Power | **12VDC input** |
| Communication Frequency | **434MHz or 315MHz** |
| Keys | **Customised to requirements** |
| Icons | **Customised to requirements** |
| Panel Material | **Crystal Glass, Stainless Steel or other material agreed by Clipsal** |
| Panel Colour | **Customised to requirements** |
| Backlit Colour | **Amber or Blue<br>(Automatic delay off after pre-defined time delay)** |
| Control Features | **Customisable to the following functions:<br>Scenes<br>Command On/Off<br>Toggle Operation<br>Pre-defined circuit dimming<br>Master On/Off<br>Master Dimming** |
| Mounting | **Flush Mount** |
| Dimensions | **Customised to requirements** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **0 - 95% RH** |

## PRODUCT FEATURES

- Convenient control of all electrical guestroom amenities.
- Customisable buttons, icons and panel finish.
- Automatic time delay off.
- Light touch buttons equipped with LED backlight enables guests to locate switch in a dark environment.
- Built-in RF transmitter/receiver enables remote switching and dimming functions.
- Customised scene or individual circuit control increases the flexibility to change lighting moods.
- Wireless connectivity reduces the hassle of managing conduit and wiring of the unit.
- Compliant with requirements of European Community Countries for Electromagnetic Compliance.



| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Made to Order** | RF Bedside 020L (Left Side), Amber Backlit, Stainless Steel (Sample Unit) |
| **Made to Order** | RF Bedside 020R (Right Side), Amber Backlit, Stainless Steel (Sample Unit) |

**Available in 434MHz or 315MHz frequencies.*

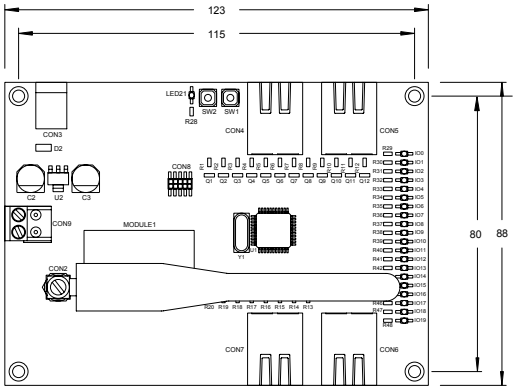
# Universal Input/Output Modules

The Universal Input/Output Module communicates with the EZinstall family switches, dimmers and bedside console via radio frequency to create a complete guestroom control solution. This module controls ULTI series courtesy panels through a built-in logic engine that relates guestroom control functions to the bedside console and vice-versa.

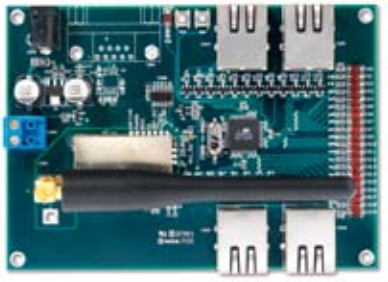
The Input/Output Module enables the programming of specific lighting ambience to greet or welcome guests as they enter the room or when the room is being occupied.

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **U20NRUD003** |
| Power | **12VDC input** |
| Communication Frequency | **434MHz or 315MHz** |
| Control Features | **Pre-defined Scene Setting<br>Command Off<br>Bell Disable<br>Status LED Display Control<br>Built-in Logic Engine** |
| Input/Output | **20 programmable Input/Output** |
| Connection | **4 x RJ45** |
| Dimensions | **124mm x 89mm** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **0 - 95% RH** |




***U20NRUD001 illustrated***



***U20NRUD003***

## PRODUCT FEATURES

- Built-in RF transmitter/receiver enables remote switching and dimming functions.
- Customised scene or individual circuit control increases the flexibility to change lighting moods.
- Wireless connectivity reduces hassle in managing conduit and wiring to the unit.
- Built-in logic control engine.
- Programmable input/output control function.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **U20NRUD003 X01** | Universal Input/Output Module (EZinstall/NEO-i), 434MHz |
| **U20NRUD003 X00** | Universal Input/Output Module (EZinstall/NEO-i), 315MHz |

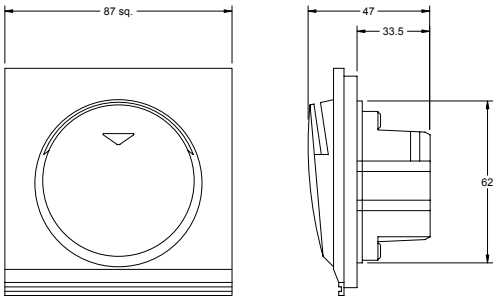
# Key Card Switch

The ULTI Family Key Card Switch is designed to connect with Clipsal's Universal Input/Output Module to form a complete hotel room control system. Key Card Switch is available in a wide range of finishes and easily complements the ULTI Hotel Control Solution range of bedside console, switches and dimmers.

*U31EKTH*

## TECHNICAL INFORMATION

| Catalogue Number | U31EKTH | U31EKTH LV |
|---|---|---|
| Switch Output (Voltage) | 1 | |
| Backlit LED | Amber or Blue | |
| Input Voltage | 220VAC | 9 - 16VDC |
| Mounting Centers | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 39mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |




## PRODUCT FEATURES

- Complements the Bedside Console, switches and dimmers for a complete guestroom control solution.
- Compliant with requirements of European Community Countries for Electromagnetic compliance.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| U31EKTH | Key Card Switch |
| U31EKTH LV | Key Card Switch, Low Voltage |

**Cover Selection**

| Brushed Silver | Pearl White | Champagne Gold | Crystal Glass | |
|---|---|---|---|---|
| BBS | BPW | ACG | BGL | |

# Bell Press Switch

The ULTI Family Bell Press Switch is available in a wide range of finishes and easily complements the ULTI Hotel Control Solution range of bedside console, switches and dimmers.

*US31BP BGL*

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **US31BP** |
| Switch Output (Voltage) | **1** |
| Backlit LED | **Amber or Blue** |
| Input Voltage | **240VAC** |
| Mounting Centers | **60.3mm** |
| Dimensions | **87mm(H) x 87mm(W) x 36mm(D)** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **0 - 95% RH** |

***Note:*** *Other input voltage frequencies are available upon request.*

## PRODUCT FEATURES

- Complements the Bedside Console, switches and dimmers for a complete guestroom control solution.
- Compliant with requirements of European Community Countries for Electromagnetic compliance.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **US31BP** | Bell Press Switch |
| **Bell Press Switch Without Cover** | |
| **US31BP A00** | Bell Press Switch, Amber LED, Module only |
| **US31BP B00** | Bell Press Switch, Blue LED, Module only |
| *Refer to Bell Press Switch Cover Plates for Cover Selection* | |

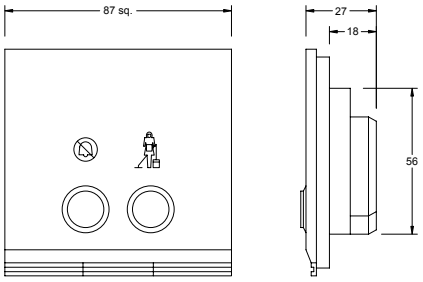
# Courtesy Panels

The ULTI Family Courtesy Panels are designed to connect with Clipsal's Universal Input/Output Module to form a complete hotel room control system. Courtesy panels provide guests with the convenience of indicating their preference for privacy to the hotel's housekeeping staff, such as to "Make Up Room" or "Do Not Disturb".

Courtesy Panels are available in a wide range of finishes and easily complements the ULTI Hotel Control Solution range of bedside console, switches and dimmers.

## TECHNICAL INFORMATION

| Catalogue Number | US32DMRJ 000 | US33DMRJ |
|---|---|---|
| Switch Output (Voltage) | 2 | N/A |
| Switch Output (Voltage Free) | N/A | 1 |
| Statue LED | 2 - DND/MUR | 2 - DND/MUR |
| Magnetic Switch | N/A | 1 |
| Backlit LED | Amber or Blue | |
| Input Voltage | 9-12VDC | |
| Mounting Centers | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 36mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |




*US32HDMS illustrated*

*US32DMRJ 000*

*US33DMRJ*

## PRODUCT FEATURES

- Customisable icons to suit hotel's requirements.
- Light touch buttons equipped with LED backlight enable guests to locate switch in a dark environment.
- Complements the Bedside Console, switches and dimmers for a complete guestroom control solution.
- Compliant with requirements of European Community Countries for Electromagnetic compliance.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **Control Switch** | |
| **US32DMRJ 000** | Courtesy Panel, Internal, DND/PCU Control Switch, RJ45 |
| **Indicator Switch with Bell Press** | |
| **US33DMRJ** | Courtesy Panel, External, DND/PCU Indicator Switch with Bell Press, RJ45 |
| **Courtesy Panels Without Cover** | |
| **US32DMRJ 000** | Courtesy Panel, Internal, DND/PCU Control Switch RJ45, Amber Blue LED, Module Only |
| **US33DMRJ A00** | Courtesy Panel, External, DND/PCU Indicator Switch with Bell Press RJ45, Amber LED, Module Only |
| **US33DMRJ B00** | Courtesy Panel, External, DND/PCU Indicator Switch with Bell Press RJ45, Amber LED, Module Only |
| *Refer to Courtesy Panel Cover Plates for Cover Selection* | |

# Shaver Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| US727H | Universal Shaver Socket, 100/240VAC |

**Cover Selection**

| Brushed Silver | Pearl White | Champagne Gold | Crystal Glass | |
|---|---|---|---|---|
| XBS | XPW | XCG | XGL | |

*US727H XGL*

# Bell Press Switch Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UC31BP | Bell Press Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| Brushed Silver XBS | Pearl White XPW | Champagne Gold XCG | Crystal Glass XGL |

| Metal | | | | | |
|---|---|---|---|---|---|
| Silver Mirror 301 | Silver Hairline 302 | Black Mirror 303 | Black Hairline 304 | Metallic Yellow 305 | Metallic Light Blue 306 |

*UC31BP XGL*

# Courtesy Panel Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| UC32HDMS | DND/PCU Control Switch Cover Plate |
| UC33HBPDM | DND/PCU Indicator with Bell Press Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| Brushed Silver XBS | Pearl White XPW | Champagne Gold XCG | Crystal Glass XGL |

| Metal | | | | | |
|---|---|---|---|---|---|
| Silver Mirror 301 | Silver Hairline 302 | Black Mirror 303 | Black Hairline 304 | Metallic Yellow 305 | Metallic Light Blue 306 |

*UC32HDM XGL*

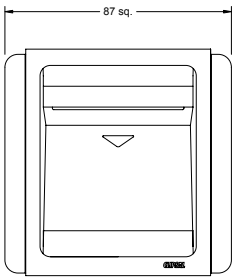
# Key Card Switch

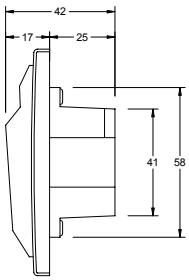
NEO Extra Low Voltage Series Hotel Control Solutions are so versatile that it easily integrates with most Guestroom Management Systems (GMS). The Key Card Switch operates in conjunction with the hotel's GMS to provide information to Front Desk staff on guestroom occupancy status and energy management performance.

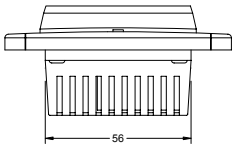
*E3031EKTHLV*

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **E3031EKTHLV** |
| Output | **Voltage free dry contact** |
| Contact Rating | **Max. 24VDC/20mA** |
| Status LED Input | **5 or 12VDC (selectable)** |
| LED Color | **Amber** |
| Connection | **RJ45** |
| Mounting Centers | **60.3mm** |
| Dimensions | **87mm(H) x 87mm(W) x 42mm(D)** |
| Card Dimension | **86mm(L) x 54mm(W)** |
| Card Thickness | **0.6 mm - 1.1mm** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **0 - 95% RH** |




## PRODUCT FEATURES

- Modern, stylish and contemporary design.
- Integrates with most Guestroom Management Systems (GMS) in the market.
- RJ45 connection design.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E3031EKTHLV EAGS** | Key Card Switch, Battleship Grey |

# Switches

NEO Extra Low Voltage Series Hotel Control Solutions are so versatile that it easily integrates with most Guestroom Management Systems (GMS). The NEO ELV Switches reflects the latest in cutting edge design, fitted large, flat, tactile rockers with amber LED to provide guests with convenient on/off switching.

Its modern and stylish appearance makes it suitable to complement any contemporary interior design.

## TECHNICAL INFORMATION

| Catalogue Number | E3031LV | E3032LV | E3033LV |
|---|---|---|---|
| Output | Voltage free dry contact | | |
| Contact Rating | Max. 24VDC / 20mA | | |
| Status LED Input | 5 or 12VDC (selectable) | | |
| LED Color | Amber | | |
| Connection | RJ45 | | |
| Mounting Centers | 60.3mm | | |
| Dimensions | 87mm(H) x 87mm(W) x 30mm(D) | | |
| Operating Temperature Range | 0˚C to 40˚C | | |
| Operating Humidity Range | 0 - 95% RH | | |

*E3032LV*

## PRODUCT FEATURES

- Modern, stylish and contemporary design.
- Integrates with most Guestroom Management Systems (GMS) in the market.
- RJ45 connection design.
- Tactile switch.
- Easy-to-use light-touch buttons.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E3031LV EAGS** | 1 Gang Switch, 5/12V Selectable, Battleship Grey |
| **E3032LV EAGS** | 2 Gang Switch, 5/12V Selectable, Battleship Grey |
| **E3033LV EAGS** | 3 Gang Switch, 5/12V Selectable, Battleship Grey |

# Dimmers

NEO Extra Low Voltage Series Hotel Control Solutions are so versatile that it easily integrates with most Guestroom Management Systems (GMS). The NEO ELV Dimmers reflects the latest in cutting edge design, fitted large, flat, tactile rockers with amber LED to provide guests with convenient on/off switching and dimming.

Its modern and stylish appearance makes it suitable to complement any contemporary interior design.

## TECHNICAL INFORMATION

| Catalogue Number | E3031DLV | E3032DLV |
|---|---|---|
| Output | Voltage free dry contact | |
| Contact Rating | Max. 24VDC/20mA | |
| Status LED Input | 5 or 12VDC (selectable) | |
| LED Color | Amber | |
| Connection | RJ45 | |
| Mounting Centers | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 30mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |

*E3032DLV*

## PRODUCT FEATURES

- Modern, stylish and contemporary design.
- Integrates with most Guestroom Management Systems (GMS) in the market.
- RJ45 connection design.
- Tactile switch.
- Easy-to-use light-touch buttons.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| E3031DLV EAGS | 1 Gang Dimmer, 5/12V Selectable, Battleship Grey |
| E3032DLV EAGS | 2 Gang Dimmer, 5/12V Selectable, Battleship Grey |

# Courtesy Panels

NEO Extra Low Voltage Series Hotel Control Solutions are so versatile that it easily integrates with most Guestroom Management Systems (GMS) available in the market. The Courtesy Panel operates in conjunction with the hotel's GMS to provide guests with the convenience of indicating their preference for privacy to the hotel's housekeeping staff, such as to "Make Up Room" or "Do Not Disturb".

The NEO ELV Series reflects the latest in cutting edge design, fitted with amber LED status indicators and easy-to-use light-touch button operation.

Its modern and stylish appearance makes it suitable to complement any contemporary interior design.

***E3031DMBLV EGGS***

## TECHNICAL INFORMATION

| Catalogue Number | E3031DMBLV | E3032DMBWLV | E3031WLV | E3032DMLV | E3033DMBLV |
|---|---|---|---|---|---|
| Output | **Voltage free dry contact** | | | | |
| Contact Rating | **Max. 24VDC/20mA** | | | | |
| Status LED Input | **5 or 12VDC (selectable)** | | | | |
| LED Color (Control Switch) | **Amber** | | | | |
| LED Color (Bell Press Switch) | **Red - DND/Please Wait Display<br>Green - MUR Display** | | | | |
| Connection | **RJ45** | | | | |
| Mounting Centers | **60.3mm** | | | | |
| Dimensions | **87mm(H) x 87mm(W) x 30mm(D)** | | | | |
| Operating Temperature Range | **0˚C to 40˚C** | | | | |
| Operating Humidity Range | **0 - 95% RH** | | | | |

## PRODUCT FEATURES

- Modern, stylish and contemporary design.
- Integrates with most Guestroom Management Systems (GMS) in the market.
- RJ45 connection design.
- Tactile switch.
- Easy-to-use light-touch buttons.
- Customisable icons to suit requirements.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E3031DMBLV EGGS** | Courtesy Panel, External, Bell Switch with DND/PCU/Butler Call, 5/12V Selectable, Battleship Grey |
| **E3031DMBWLV EGGS** | Courtesy Panel, External, Bell Switch with DND/PCU/Butler Call/Please Wait Indicator, 5/12V Selectable, Battleship Grey |
| **E3031WLV EAGS** | Courtesy Panel, Internal, Please Wait Control Switch, 5/12V Selectable, Battleship Grey |
| **E3032DMLV EAGS** | Courtesy Panel, Internal, DND/PCU Control Switch, 5/12V Selectable, Battleship Grey |
| **E3033DMBLV EAGS** | Courtesy Panel, Internal, DND/PCU/Butler Call Control Switch, 5/12V Selectable, Battleship Grey |

# Curtain Switches

NEO Extra Low Voltage Series Hotel Control Solutions are so versatile that it easily integrates with most Guestroom Management Systems (GMS). The NEO ELV Series Curtain Switches operates in conjunction with the hotel's GMS to perform selected curtain control functions. The Curtain Switches reflects the latest in cutting edge design, fitted large, flat, tactile rockers with amber LED to provide guests with the convenience of opening and closing curtains at the touch of a button.

Its modern and stylish appearance makes it suitable to complement any contemporary interior design.

## TECHNICAL INFORMATION

| Catalogue Number | E3031CLV | E3032CLV |
|---|---|---|
| Output | Voltage free dry contact | |
| Contact Rating | Max. 24VDC/20mA | |
| Connection | RJ45 | |
| Mounting Centers | 60.3mm | |
| Dimensions | 87mm(H) x 87mm(W) x 30mm(D) | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 0 - 95% RH | |

*E3031CLV*

## PRODUCT FEATURES

- Modern, stylish and contemporary design.
- Integrates with most Guestroom Management Systems (GMS) in the market.
- RJ45 connection design.
- Tactile switch.
- Easy-to-use light-touch buttons.
- Customisable icons to suit requirements.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| E3031CLV | 1 Gang Curtain Switch, 5/12V Selectable, Battleship Grey |
| E3032CLV | 2 Gang Curtain Switch, 5/12V Selectable, Battleship Grey |

# Shaver Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| ET3727V GS | Universal Shaver Socket, 100/240VAC, Battleship Grey |
| ET3727V WW | Universal Shaver Socket, 100/240VAC, White Electric |

*ET3727V GS*



# Unswitched Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| US426 | Single Gang Socket, 13A |
| UST426 | Twin Gang Socket, 13A |

**Cover Selection**

| Brushed Silver | Pearl White | Champagne Gold | Crystal Glass | |
|---|---|---|---|---|
| **XBS** | **XPW** | **XCG** | **XGL** | |

**Unswitched Socket Outlet Without Cover**

| | |
|---|---|
| US426 000 | Single Gang Socket, 13A, Module Only |

*US426 XGL*

# Switched Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| US15 A00 | Single Gang Socket, 13A, Amber LED |
| UST25 A00 | Twin Gang Socket, 13A, Amber LED |
| US15 B00 | Single Gang Socket, 13A, Blue LED |
| UST25 B00 | Twin Gang Socket, 13A, Blue LED |

*UST25*

# Telephone/Data Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| US31RJ 000 | 1 Gang Telephone/Data Socket, RJ45, Module Only |

*US31RJ*

# TV/FM Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| US32TVFM/2 000 | 1 Gang TV/FM Socket, Module Only |

# Television Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| US31TV 000 | 1 Gang Television Socket, Module Only |

*US31TV*

# Dual Data Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| US32TD 000 | 2 Gang Telephone/Data Socket, RJ45, Module Only |

*US32TD*

# AV Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| US31AV 000 | RCA/S-Video Socket, Module Only |

*US31AV*

# Unswitched Socket Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| British Standard | |
| UC426 | British Standard 13A Power Socket Cover Plate |
| UCT 426 | Twin Gang, British Standard 13A Power Socket Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| Brushed Silver XBS | Pearl White XPW | Champagne Gold XCG | Crystal Glass XGL |

| Metal | | | | | |
|---|---|---|---|---|---|
| Silver Mirror 301 | Silver Hairline 302 | Black Mirror 303 | Black Hairline 304 | Metallic Yellow 305 | Metallic Light Blue 306 |

*UC426 XGL*

# Telephone/Data Module Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **British Standard** | |
| **UC31RJ** | 1 Gang Data Socket Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

***UC31RJ XGL***

# Television Module Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **British Standard** | |
| **UC31TV** | 1 Gang TV Socket Cover Plate |
| **UC32TVFM** | 2 Gang TV/FM Socket Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

***UC31TV XGL***

# Dual Data Module Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **British Standard** | |
| **UC32TD** | 2 Gang Data Socket Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

***UC32TD XGL***

# AV Module Cover Plates

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **British Standard** | |
| **UC31AV** | RCA/S-Video Cover Plate |

**Cover Selection**

| Plastic | | | Glass |
|---|---|---|---|
| **Brushed Silver XBS** | **Pearl White XPW** | **Champagne Gold XCG** | **Crystal Glass XGL** |

| Metal | | | | | |
|---|---|---|---|---|---|
| **Silver Mirror 301** | **Silver Hairline 302** | **Black Mirror 303** | **Black Hairline 304** | **Metallic Yellow 305** | **Metallic Light Blue 306** |

***UC31TV XGL***

# Universal Socket Outlets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **China Standard** | |
| **E3426US** | Single Gang Socket, 2-Pin, 10A |
| **E3426US2** | Single Gang Socket, 2x2-Pin, 10A |
| **E3426/10US** | Single Gang Socket, 2/3-Pin, 10A |
| **E3015US** | Single Gang Switched Socket, 2-Pin, 10A |
| **E3015/10US** | Single Gang Switched Socket, 2/3-Pin, 10A |

**Cover Selection**

| Battleship Grey | White | |
|---|---|---|
| **GS** | **WW** | |

***E3426 GS***

***E3015 GS***

# Socket Outlets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **China Standard** | |
| **E3426CS** | Single Gang Socket, 3-Pin, 10A |
| **E3015CS** | Single Gang Switched Socket, 3-Pin, 10A |
| **E3426/16CS** | Single Gang Socket, 3-Pin, 16A |
| **E3015/16CS** | Single Gang Switched Socket, 3-Pin, 16A |

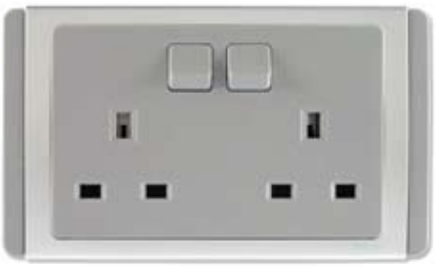
**Cover Selection**

| Battleship Grey | White | |
|---|---|---|
| **GS** | **WW** | |

| | |
|---|---|
| **E3015CSE** | Single Gang Switched Socket with LED, 3-Pin, 10A |
| **E3015/16CSE** | Single Gang Switched Socket with LED, 3-Pin, 16A |

**Cover Selection**

| Battleship Grey | White | |
|---|---|---|
| **EBGS** | **EWWW** | |



***ET3025 GS***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **British Standard** | |
| **E3426** | Single Gang Socket, 3-Pin, 13A |
| **E3015** | Single Gang Switched Socket, 3-Pin, 13A |
| **ET3426** | Twin Gang Socket, 3-Pin, 13A |
| **ET3025** | Twin Gang Switched Socket, 3-Pin, 13A |
| **E3426/16S** | Single Gang, 2P+E, 16A |

**Cover Selection**

| Battleship Grey | White | |
|---|---|---|
| **GS** | **WW** | |

| | |
|---|---|
| **E3015D** | Single Gang Switched Socket with LED, 3-Pin, 13A |
| **ET3025D** | Twin Gang Switched Socket with LED, 3-Pin, 13A |
| **ET3015/15** | Single Gang Socket, 3-Pin Round, 13A |

**Cover Selection**

| Battleship Grey | White | |
|---|---|---|
| **EBGS** | **EWWW** | |

# Television Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E3031TV** | 1 Gang, Television Socket, Coaxial |
| **E3031TVF** | 1 Gang, Television Socket, F-Type |
| **E3031STVM** | 1 Gang, Television Socket, Shielded, 3.5dB |
| **E3031STVS** | 1 Gang, Television Socket, Coaxial with Shutter |
| **E3032VTV** | 2 Gang, Television Socket, Coaxial, Vertical |
| **E3032VTVFM/2** | 2 Gang, TV/FM Socket |

**Cover Selection**

| Battleship Grey | White | |
|---|---|---|
| **GS** | **WW** | |

***E3031TV GS***

# Telephone and Data Sockets

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E3031RJ** | 1 Gang, Telephone Socket, RJ11 |
| **E3032RJ** | 2 Gang, Telephone Socket, RJ11 |
| **E3031/1M** | 1 Gang, Telephone Socket, BT Standard |
| **E3031RJ5E** | 1 Gang, Data Socket, RJ45, Cat 5e |
| **E3032RJ5E** | 2 Gang, Data Socket, RJ45, Cat 5e |
| **E3032TD** | 2 Gang, Data/Telephone Socket, RJ45/RJ11 |

**Cover Selection**

| Battleship Grey | White | |
|---|---|---|
| **GS** | **WW** | |

***E3031RJ WW***

# Clipsal PremiseGateway™

intelligent buil
smart homes
lighting control solution
energy managemen
control systems
home automation

# Clipsal PremiseGateway™

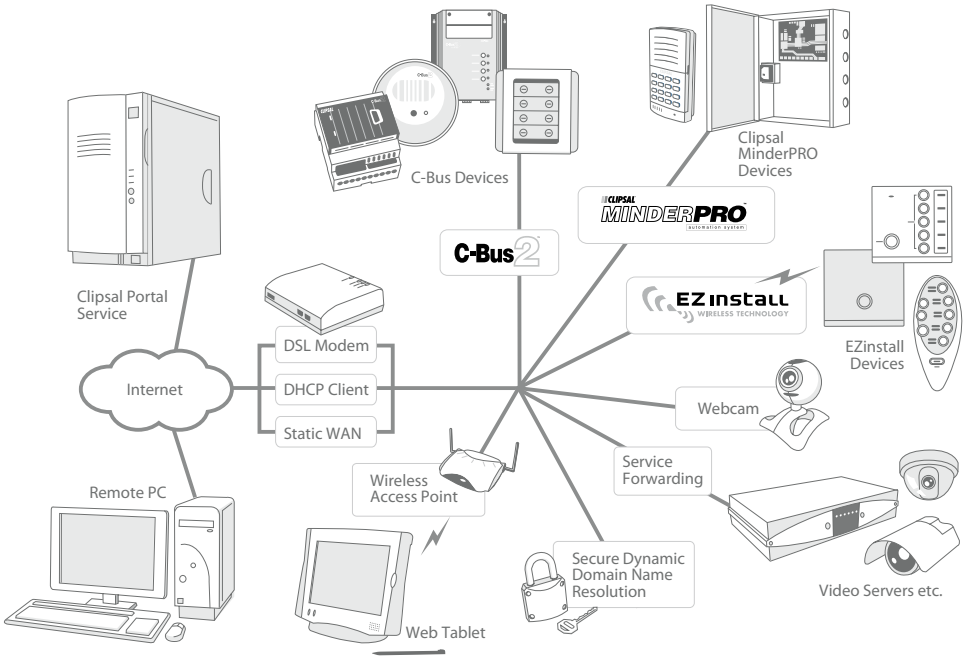
The Clipsal PremiseGateway™ is the solution for users to access control systems over the Internet, whilst providing broadband sharing and security services for devices on home or office LANs. It is designed for both commercial and residential applications.

Clipsal PremiseGateway™ acts as both a router to enable internal users to share an Internet connection, and as a secure gateway allowing authorised users to connect to control systems such as C-Bus, EZinstall, Clipsal MinderPRO, Clipsal CentralAXS or other systems such as video servers and web-servers. All of these services are provided in a state-of-the-art security and firewall framework.

End users can access their control, security, CCTV, automation systems and LAN remotely, secure in the knowledge that they are doing so in a secure manner with industrial grade certification, authentication and encryption technology.

When used in conjunction with the Clipsal Portal, the Clipsal PremiseGateway™ enables users to connect to remote systems using a standard low cost DSL connection - this avoids the requirement for expensive fixed IP addresses.

Clipsal PremiseGateway™ currently supports Clipsal control system products for lighting, power, access control, CCTV and automation applications. Subsequent releases of the Clipsal PremiseGateway™ will support a range of new Clipsal products and services as well as a wide range of 3rd party products, protocols and services.



***5903M23000***

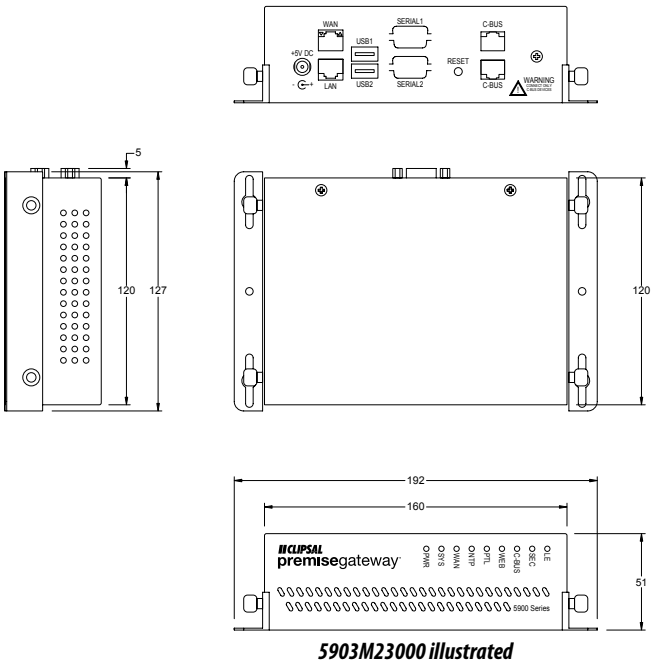
## PRODUCT FEATURES

- Monitor and control C-Bus, EZinstall, Clipsal MinderPRO, Clipsal CentralAXS and selected 3rd party systems remotely or locally through a LAN.
- Access via PC, Web tablet, PDA or Internet enabled mobile phone to access Clipsal PremiseGateway™ functionality.
- Embedded web server software - no need to install and maintain software in multiple locations. The Clipsal PremiseGateway™ will support up to 4 connections concurrently.
- Connection Management - Clipsal PremiseGateway™ provides flexible management of your internet connection. The Clipsal PremiseGateway™ can be configured to maintain your connection to the Internet permanently or connect on demand when required by an internal device such as your home PC.
- Stateful Firewall protects Local Area Network from Denial of Service (DOS) attacks or unauthorised access to control systems. Clipsal PremiseGateway™ provides a fully featured firewall protecting internal services from unauthorized users and intruders.
- Web-based Configuration - fully featured web application enabling Remote Access & Control.
- Secure Dynamic DNS - when the Clipsal PremiseGateway™ is used in conjunction with the Clipsal Portal Service, it is possible to connect to remote premises from any Internet connection in the world by logging into a Clipsal Portal Service and keying in your security credentials. In addition, it is possible to have a dedicated URL which points to your home from anywhere in the world. Features industrial standard 128-bit encryption.
- Shared Connection - Clipsal PremiseGateway™ provides a DHCP Server and Internet Gateway Service enabling multiple users and/or devices to connect to the Internet sharing the same connection.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5901M23000** | Clipsal PremiseGateway™, 100-264VAC, 5VDC |
| **5903M23000** | Clipsal PremiseGateway™, 100-264VAC, 5VDC with C-Bus Interface |

## TECHNICAL INFORMATION

| | |
|---|---|
| CPU Chipset | **NS Geode GX1, 300MHz x86 CPU Core** |
| Memory | **64MB SDRAM onboard** |
| Dual Network Contoller Chipset | **10/100Mbps, auto switching** |
| Serial Ports | **2 x High Speed RS232/485 ports** |
| USB | **2 x USB v1.1 ports, Open HCL compliant** |
| Dimensions | **160mm(W) x 50mm(H) x 120mm(D)** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating System | **Linux** |
| Internet Connectivity | **PPPoE, DHCP Client, Static IP** |
| DHCP Server | **Web configurable DHCP Server. Configurable range.** |
| NTP Server | **Synchronizes System Click with Network Time Servers. Allows other internal devices to sync their clocks with the Clipsal PremiseGateway™ NTP Service.** |
| Video Connectivity | **Forwarding of sequences of JPEG still frames from a range of Video Servers. Full http-authentication support.** |
| Firewall | **Packet Filtering, Directional Protection, Port Forwarding, Port Management, Denial of Service Protection. uPNP Internet Gateway Device Compliant.** |
| C-Bus Connectivity | **Direct, Serial (PCI) or Ethernet (CNI) connection to C-Bus. Single network control. Monitor and controls up to 255 Group Addresses. Supports multiple C-Bus applications.** |
| EZinstall Connectivity | **Serial or Clipsal MinderPRO (UCM) Connection to EZinstall Network Interface Module. Supports up to 40 EZinstall Devices (Toggle Only). Supports up to 40 EZinstall scenes.** |
| Clipsal MinderPRO Connectivity | **Control and monitor alarm panel states - armed, disarmed, day, night and vacation modes. Monitor zone states, battery voltage, mains power status. Control and monitoring of output devices.** |
| Portal Connectivity | **Dynamic IP resolution. Strong connection security.** |
| Scheduler & Logic Engine | **32 user definable schedules with up to 255 commands per schedule. Up to 255 User definable scenes per schedule. Each up to 255 commands per schedule.** |




*5903M23000 illustrated*

# Protocol Gateway

The Protocol Gateway is a solution providing a solid state communication interface between Modbus and C-Bus Networks. This product enable C-Bus Group Addresses to be mapped onto ModBus Points on a block or single unit.

The Protocol Gateway is a solid state hardware gateway designed to provide two-way communication between a ModBus and C-Bus Network. The unit is designed with Building Automation solutions in mind and has a simple-to-use web-based configuration interface enabling mapping of ModBus Points to C-Bus Group Addresses.

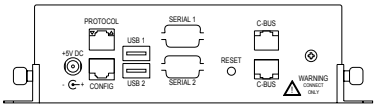
ModBus Input and Output Coils are supported as well as ModBus Input and Holding Regisers.

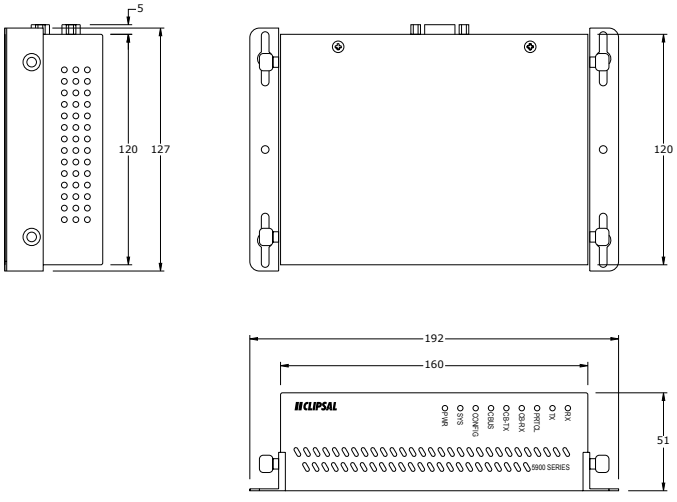
The Protocol Gateway communicates with C-Bus using an on-board C-Bus Interface and with ModBus via a dedicated Ethernet Interface.

***5913M23000***

**TECHNICAL INFORMATION**

| | |
|---|---|
| CPU Chipset | **NS Geode GX1, 300MHz x86 CPU Core** |
| Memory | **64MB SDRAM onboard** |
| Dual Network Contoller Chipset | **10/100Mbps, auto switching** |
| Serial Ports | **2 x High Speed RS232/485 ports** |
| USB | **2 x USB v1.1 ports, Open HCL compliant** |
| Dimensions | **160mm(W) x 50mm(H) x 120mm(D)** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating System | **Linux** |
| C-Bus Networks Supported | **1** |
| C-Bus Group Address Range | **0-254** |
| C-Bus Applications Supported | **Lighting & Control** |




***5913M23000 illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5913M23000** | C-Bus to ModBus Protocol Gateway |

# Energy Management

intelligent buil
smart homes
lighting control solution
energy managemen
control systems
home automation

# Energy Controller

The Energy Controller can be installed easily into existing fluorescent lighting circuits and is ideal for use in existing office, shopping center,warehouse, and public facilities. It works with any type of linear fluorescent lamp using a magnetic ballast and any type of starter. It is designed around a patented soft switching system, which allows the unit to reduce the voltage required by fluorescent lights once they have been switched on. The Energy Controller is fail-safe; in event of a failure it returns to standard mains power. The Energy Controller is compact and can be located at or near the distribution board or installed directly in the switched line of the light load, before or after, the light switches.

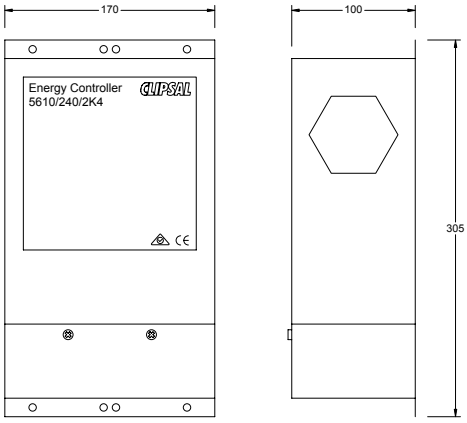
***5610/240/2K4***

## TECHNICAL INFORMATION

| Catalogue Number | 5610/240/2K4 | 5610/240/3K8 | 5610/240/4K8 |
|---|---|---|---|
| Dimensions (mm) | **305 x 170 x 100** | **305 x 170 x 100** | **305 x 170 x 100** |
| Weight | **5.5 kg** | **7.5 kg** | **7.5 kg** |
| Load | **2400VA** | **3800VA** | **4800VA** |
| Circuit Breaker | **10A** | **16A** | **20A** |
| **Suggested Loading** | | | |
| 36W Fluorescent | **50 tubes** | **80 tubes** | **100 tubes** |
| 40W Fluorescent | **46 tubes** | **74 tubes** | **92 tubes** |
| 58W Fluorescent | **34 tubes** | **54 tubes** | **68 tubes** |
| 65W Fluorescent | **30 tubes** | **48 tubes** | **60 tubes** |
| Input | **Normal AC voltage[2] frequency 50/60Hz** | | |
| Output | **Full power time; 1-5 minutes after switching on** | | |
| Set to saving of full power | **28% Continuously monitors the mains "voltage". Switches out of Economy when mains voltage drops by 12.5%. Continuously monitors the "current". Senses load change and switches the Economy to allow easy lamp striking. Soft Switching of the load from mains to economy voltage and vice versa, is achieved by our patented microprocessor system.** | | |

***Notes:*** *Please note the limiting factors in determining the load for each Energy Controller unit. The exact quantity of lights depends on the light wattage, the system power factor and the systems condition.*

*With the Energy Controller at 10% reduction, the results from a recent series of light measurements taken at 1.5m from the ground using Philips New Generation TLD lamps were: (240V supply voltage), varied from 481 to 492 Lux and (in economy mode) from 436 to 479 Lux.*




***5610/240/2K4 illustrated***

## PRODUCT FEATURES

- For use with fluorescent lighting only.
- Energy efficient.
- Easy to retrofit, simple, quick installation.
- No modification of light fittings required.
- Unlimited number of units per site.
- Fail-safe, system wide failure not possible.
- Current sensing for stable lamp switching.
- Voltage sensing, "brownout" minimisation.
- Extends life of tube, ballast and fitting.
- Reduces temperature of light and fitting.
- World leading technology and innovation.
- Suitable for magnetic ballasts.
- RCM, CE compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5610/240/2K4** | Energy Controller, 2400VA, 240VAC, 50Hz |
| **5610/240/3K8** | Energy Controller, 3800VA, 240VAC, 50Hz |
| **5610/240/4K8** | Energy Controller, 4800VA, 240VAC, 50Hz |
| **5610/230/2K4** | Energy Controller, 2400VA, 230VAC, 50Hz |
| **5610/230/3K8** | Energy Controller, 3800VA, 230VAC, 50Hz |
| **5610/230/4K8** | Energy Controller, 4800VA, 230VAC, 50Hz |
| **5610/220/2K4** | Energy Controller, 2400VA, 220VAC, 50Hz |
| **5610/220/3K8** | Energy Controller, 3800VA, 220VAC, 50Hz |
| **5610/220/4K8** | Energy Controller, 4800VA, 220VAC, 50Hz |

# Occupancy Sensors

*intelligent buil*

*smart homes*

*lighting control solution*

*energy managemen*

*control systems*

*home automation*

# Ultrasonic Sensor, Corridors

The ultrasonic corridor sensor has been specifically designed to detect movement inside buildings and activate lighting for a pre-determined period in response. These sensors feature a detection pattern that is asymmetrically, with coverage up to 4.6m x 30m and field of view of 360˚, ideal for use in corridors and passages.

Ultrasonic detectors use a high frequency signal to detect movement. The detection method of ultrasonic detectors is superior when compared with infrared sensors, as ultrasonic sensors are more sensitive to fine movements. In addition, ultrasonic sensors have a greater coverage range, which means fewer sensors are required to cover the same area.

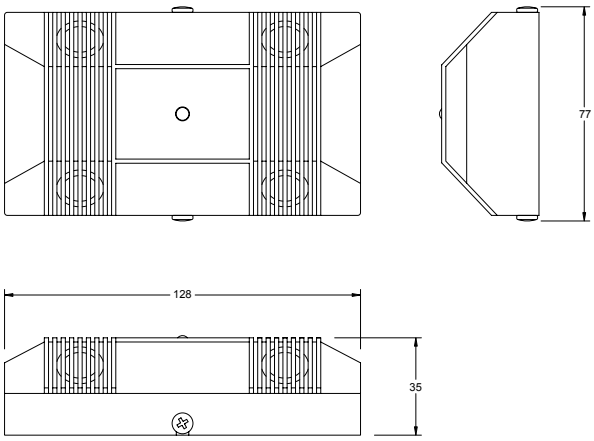
The ultrasonic sensors are supplied with a separate power pack, which features a voltage free relay contact that may be used to signal a building management system, when lighting has been activated. In this way the control of the air-conditioning for instance may be synchronized to lighting, providing additional energy savings for that zone.

The sensors feature a user adjustable time delay and detection range and a logic bypass switch to force all lights on independent of the sensor. All controls are conveniently located on the front of the unit.

***752/135U***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **752/135U** |
| Supply Voltage | **192-264VAC, 50/60Hz** |
| Load Current | **7.5A switched active** |
| Minimum Load | **0mA** |
| Detection Method | **Ultrasonic** |
| Operating Frequency | **32.7kHz** |
| Status Indicators | **Red LED** |
| BMS/EMS Inputs | **Isolated changeover relays** |
| Compatible Loads | **Incandescent and fluorescent** |
| Time Adjustment | **0.5 - 30 mins** |
| Mounting Height | **2.4 nominal, (2.2 to 3.4m)** |
| Field of View | **360˚** |
| Detection Area | **4.6m x 30m (max.)** |
| Mounting | **Surface mount** |
| Application | **Corridors (indoors)** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **10 - 95% RH** |




## PRODUCT FEATURES

- Simple to install and commission.
- Designed for indoor applications to cover a large area.
- Fully adjustable range sensitivity and time delay.
- Retrigger time delay each time movement is detected.
- Lock out feature to turn lights on for emergency and commissioning purposes.
- High frequency audible cannot be detected and harmless to humans.
- Walk test LED for commissioning.
- 2 years manufacturers warranty.
- BMS/EMS contacts.
- C-Tick (Australia/New Zealand), CE (European Community).

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **752/135U** | Ultrasonic Sensor, Corridors, 4.5m x 30m |

# Ultrasonic Sensor, 360 Degrees

The ultrasonic sensor has been specifically designed to detect movement inside buildings and activate lighting for a pre-determined period in response. These sensors feature a detection pattern that is symmetrically, with coverage up to 12m x 12m and field of view of 360˚, suitable for large open spaces in building.

Ultrasonic detectors use a high frequency signal to detect movement. The detection method of ultrasonic detectors is superior when compared with infrared sensors, as ultrasonic sensors are more sensitive to fine movements. In addition, ultrasonic sensors have a greater coverage range, which means fewer sensors are required to cover the same area.

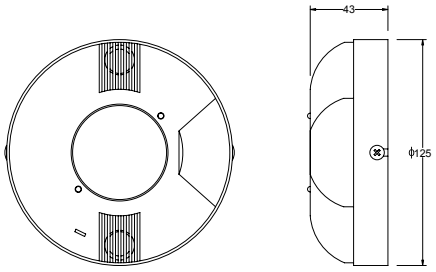
The ultrasonic sensors are supplied with a separate power pack, which features a voltage free relay contact that may be used to signal a building management system, when lighting has been activated. In this way the control of the air-conditioning for instance may be synchronized to lighting, providing additional energy savings for that zone.

The sensors feature a user adjustable time delay and detection range and a logic bypass switch to force all lights on independent of the sensor. All controls are conveniently located on the front of the unit.

***752/225CU***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **752/225CU** |
| Supply Voltage | **192-264VAC, 50/60Hz** |
| Load Current | **7.5A switched active** |
| Minimum Load | **0mA** |
| Detection Method | **Ultrasonic** |
| Operating Frequency | **32.7kHz** |
| Status Indicators | **Red LED** |
| BMS/EMS Inputs | **Isolated changeover relays** |
| Compatible Loads | **Incandescent and fluorescent** |
| Time Adjustment | **0.5 - 30 mins** |
| Mounting Height | **2.4 nominal, (2.2 to 3.4m)** |
| Field of View | **360°** |
| Detection Area | **12.1m x 12.1m (max.)** |
| Mounting | **Surface mount** |
| Application | **Large open work areas (indoors)** |
| Warm Up Time | **5 seconds** |
| Dimensions | **125mm diameter x 43mm(H)** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **10 - 95% RH** |




## PRODUCT FEATURES

- Simple to install and commission.
- Designed for indoor applications to cover a large area.
- Fully adjustable range sensitivity and time delay.
- Retrigger time delay each time movement is detected.
- Lock out feature to turn lights on for emergency and commissioning purposes.
- High frequency audible cannot be detected and harmless to humans.
- Walk test LED for commissioning.
- 2 years manufacturers warranty.
- BMS/EMS contacts.
- C-Tick (Australia/New Zealand), CE (European Community).

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **752/225CU** | Ultrasonic Sensor, 360 Degrees, 12m x 12m |

# Ultrasonic Sensor, Dual Technology

The dual ultrasonic and infrared sensor has been specifically designed to detect movement inside buildings and to activate lighting for a pre-determined period in reponse. This sensors feature a detection pattern that is symmetrical, with coverage up to 15m x 15m and a field view of 360˚, suitable for large open spaces in buildings.

The sensors feature dual technologies of ultrasonic and infrared. Ultrasonic detectors use a high frequency signal to detect movement while infrared sensors, detect the movement of a thermal body within the detection area. The reliability of detection is optimised when both technologies are used. It is possible to select between infrared or ultrasonic or both if required. The application of both technologies ensures ultimate performance in both the near field (infrared) and far field (ultrasonic) detection.

The dual sensors allows the building owner to tailor each sensor for a particular application, for instance the ultrasonic sensor may be disabled when the unit is installed near an air-conditioning vent for instance.

The ultrasonic sensors are supplied with a separate power pack, which features a voltage free relay contact that may be used to signal a building management system, when lighting has been activated. In this way the control of the air-conditioning for instance may be synchronised to lighting, providing additional energy savings for that zone.

The sensors feature a user adjustable time delay and detection range and a logic bypass switch to force all lights on independent of the sensor. All controls are conveniently located on the front of the unit.

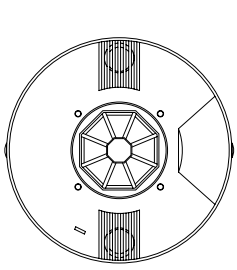
***752/225CUI***

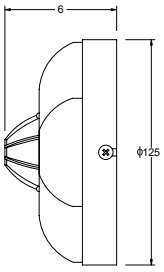
## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **752/225CUI** |
| Supply Voltage | **192-264VAC, 50/60Hz** |
| Load Current | **7.5A switched active** |
| Minimum Load | **0mA** |
| Detection Method | **Ultrasonic and infrared** |
| Operating Frequency | **32.7kHz** |
| Status Indicators | **Red LED (ultrasonic) and Green LED (infrared)** |
| BMS/EMS Inputs | **Isolated changeover relays** |
| Compatible Loads | **Incandescent and fluorescent** |
| Time Adjustment | **0.5 - 30 mins** |
| Mounting Height | **2.4 nominal, (2.2 to 3.4m)** |
| Field of View | **360°** |
| Detection Area | **15.2m x 15.2m (max.)** |
| Mounting | **Surface mount** |
| Application | **Large open work areas (indoors)** |
| Warm Up Time | **5 seconds** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **10 - 95% RH** |

## PRODUCT FEATURES

- Dual technology for maximum detecton reliability.
- Designed for indoor applications to cover a large area.
- Fully adjustable range sensitivity and time delay.
- Retrigger time delay each time movement is detected.
- Lock out feature to turn lights on for emergency and commissioning purposes.
- High frequency audible cannot be detected and harmless to humans.
- Walk test LED for commissioning.
- 2 years manufacturers warranty.
- BMS/EMS contacts.
- C-Tick (Australia/New Zealand), CE (European Community).






| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **752/225CUI** | Ultrasonic and Infrared Dual Technology Sensor, 360 Degrees, 15m x 15m |

# Passive Infrared Sensors, Outdoor 90 Degrees

The indoor infrared occupancy sensors are designed to detect movement of a thermal body and activate lighting for a pre-determined time interval in response. These sensors are ideally suited to small offices, storerooms and bathrooms. The occupancy sensors are designed for corner mounting and feature a detection range of 36m$^2$ and field of view of 90˚.

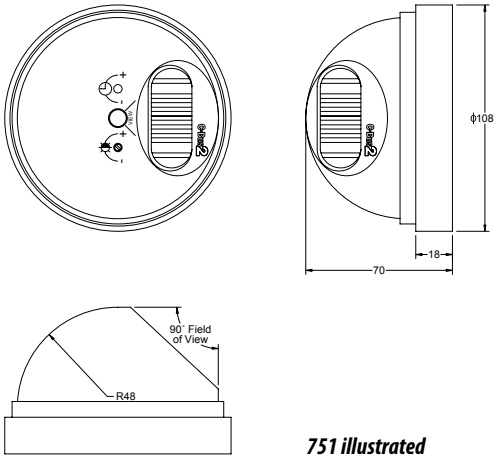
Besides the obvious convenience of automatic lighting control, the 751 series of occupancy sensors can also provide energy and cost savings on both commercial and residential applications.

The devices are designed to trigger each time movement of a thermal body is detected inside the detection range of the sensor. The period that lighting can be controlled is adjustable from 5 seconds to 20 minutes. The user can also adjust the minimum light threshold at which the sensor activates; this ensures lights are only turned on when the ambient light level is low.

*751*

## TECHNICAL INFORMATION

| Catalogue Numbers | 751 | 751R |
|---|---|---|
| Supply Voltage | 192-264VAC, 50/60Hz | |
| Installation | 2 wires (no neutral) | 3 wires (requires neutral) |
| Load Current | 2A | 10A |
| Minimum Load | 20mA | 0mA |
| Leakage Current in Off State | 2mA | 0mA |
| Detection Method | Passive infrared detection of a thermal body | |
| Compatible Loads | Incandescent and fluorescent | |
| Time Adjustment | 5 sec - 20 min | |
| Mounting Height | 2.4 nominal, (2.0 to 3.2m) | |
| Field of View | 90˚ | |
| Detection Area | 6m x 6m, 90˚ from sensor head. | |
| Adjustment | Head can rotate through 120˚ when installed. | |
| Mounting | Surface mount | |
| Warm Up Time | 5 seconds | |
| IP Rating | IP44 | |
| Load Termination | Screw Terminals (3 x 2.5mm2) | |
| Dimensions | 100mm diameter x 57mm | |
| Operating Temperature Range | 0˚C to 40˚C | |
| Operating Humidity Range | 10 - 95% RH | |




*751 illustrated*

## PRODUCT FEATURES

- Simple-to-install and commission.
- Sensor head can rotate through 120 degrees, permitting sensor head to be accurately located to target.
- Fully adjustable light threshold and time delay.
- Retrigger time delay each time movement is detected.
- 2 years manufacturers warranty.
- C-Tick (Australia/New Zealand), CE (European Community), FCC (United States) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| 751 | Infrascan, 2A, 90 Degrees, 2 Wires |
| 751R | Infrascan, 10A, 90 Degrees, 3 Wires |
| 751MB | Mounting Base for 751 Series |

# Passive Infrared Sensors, Outdoor 110 Degrees

The Infrascan is a highly reliable motion detector, designed for outdoor applications. The unit features an IP rating, IP66 and is designed to operate in direct weather. The unit is manufactured from UV stabilized plastic and designed for years of maintenance free service and reliable operation.

The sensors are designed to detect movement of a thermal body and activate lighting for a predetermined time interval in response. These sensors are ideally suited for driveways, perimeter lighting, storerooms and stairwells. The sensors are designed for ceiling or wall mounting and feature a detection range of 18m radius and field of view of 110˚.

The sensor features a multi zone Frensel lens design for optimum and reliable detection capability. The advanced electronics and lens design, divides the field of view into 48 zones located at 4 different levels, ensuring immediate reaction to body movement and reducing the number of dead zones that can be penetrated.

Besides the obvious convenience of automatic lighting control, the 750 series of occupancy sensors can also provide energy and cost savings on both commercial and residential applications.

The devices are designed to trigger each time movement of a thermal body is detected inside the detection range of the sensor. The period that lighting can be controlled is adjustable from 5 seconds to 8 minutes. The user can also adjust the minimum light threshold at which the sensor activates; this ensures lights are only turned on when the ambient light level is low. In addition, the user can adjust the sensitivity (range) from a maximum of 18m.

The sensors feature user adjustable light level threshold, range sensitivity and time delay that are accessible from the front of the unit.

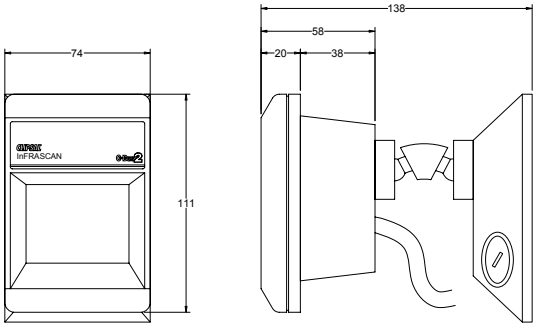
***750WP***

## TECHNICAL INFORMATION

| Catalogue Numbers | 750WP | 750WPR |
|---|---|---|
| Supply Voltage | 192-264VAC, 50/60Hz | |
| Installation | 2 wires (no neutral) | 3 wires (requires neutral) |
| Load Current | 5A | 10A |
| Minimum Load | 20mA | 0mA |
| Leakage Current in Off State | 2mA | 0mA |
| Detection Method | Passive infrared detection of a thermal body | |
| Compatible Loads | Incandescent and fluorescent | |
| Time Adjustment | 5 sec - 8 min | |
| Mounting Height | 2.4 nominal, (2.0 to 3.2m) | |
| Field of View | 110˚ | |
| Detection Area | 18m radius x 110˚ | |
| Mounting | Surface mount | |
| Warm Up Time | 5 seconds | |
| IP Rating | IP66 | |
| Operating Temperature Range | 0˚C to 50˚C | |

## PRODUCT FEATURES

- Simple-to-install and commission.
- Manufactured from UV stabilized plastic.
- IP66 rated, can be installed in direct weather.
- Features multi zone Frensel lens for superior detection capability.
- Fully adjustable light threshold, range and time delay.
- Retrigger time delay each time movement is detected.
- 5 year manufacturers warranty.
- C-Tick (Australia/New Zealand), CE (European Community), FCC (United States) compliant.




***750WP illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **750WP** | Infrascan, 5A, 110 Degrees, 2 Wires, IP66 |
| **750WPR** | Infrascan, 10A, 110 Degrees, 3 Wires, IP66 |

# Passive Infrared Sensors, Indoor 360 Degrees

The indoor infrared occupancy sensors are designed to detect movement of a thermal body and activate lighting for a pre-determined time interval in response. These sensors are ideally suited to small offices, storerooms and bathrooms. The occupancy sensors are designed for ceiling mounting and feature a detection range of 12m x 12m and field of view of 360˚.

The sensor features a multi zone Frensel lens design for optimum and reliable detection capability.

Besides the obvious convenience of automatic lighting control, the 753 series of occupancy sensors can also provide energy and cost savings on both commercial and residential applications.

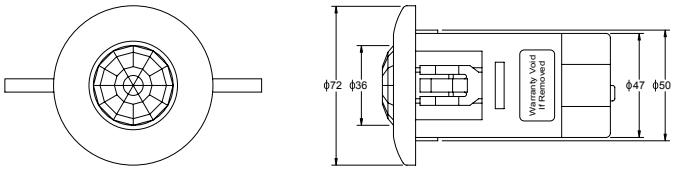
The devices are designed to trigger each time movement of a thermal body is detected inside the detection range of the sensor. The period that lighting can be controlled is adjustable from 5 seconds to 20 minutes. The user can also adjust the minimum light threshold at which the sensor activates; this ensures lights are only turned on when the ambient light level is low.

The sensors feature user adjustable light level threshold and time delay that are accessible from the front of the unit.

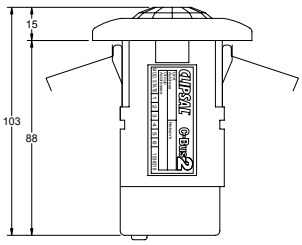
*753*

## TECHNICAL INFORMATION

| Catalogue Numbers | 753 | 753R |
|---|---|---|
| Supply Voltage | 192-264VAC, 50/60Hz | |
| Installation | 2 wires (no neutral) | 3 wires (requires neutral) |
| Load Current | 2A | 10A |
| Minimum Load | 20mA | 0mA |
| Leakage Current in Off State | 2mA | 0mA |
| Detection Method | Passive infrared detection of a thermal body | |
| Compatible Loads | Incandescent and fluorescent | |
| Time Adjustment | 5 sec - 20 min | |
| Mounting Height | 2.4 nominal, (2.0 to 3.2m) | |
| Field of View | 360˚ | |
| Detection Area | 12m x 12m, at a height of 2.4m | |
| Mounting | Flush mount | |
| Warm Up Time | 5 seconds | |
| IP Rating | IP44 | |
| Load Termination | Screw Terminals (3 x 2.5mm²) | |
| Dimensions | 72mm diameter x 103mm | |
| Operating Temperature Range | 0˚C to 50˚C | |
| Operating Humidity Range | 10 - 95% RH | |




*753 illustrated*




## PRODUCT FEATURES

- Simple-to-install and commission.
- Flush mount design.
- Features multi zone Frensel lens.
- Fully adjustable light threshold and time delay.
- Retrigger time delay each time movement is detected.
- 5 years manufacturers warranty.
- C-Tick (Australia/New Zealand), CE (European Community), FCC (United States) compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| 753 | Infrascan, 2A, 360 Degrees, 2 Wires |
| 753R | Infrascan, 10A, 360 Degrees, 3 Wires |

# The most you'll ever save with the lights on!

## SAVE UP TO 30% OFF LIGHTING ENERGY COSTS

The **Clipsal Energy Controller** saves up to **30%** of power used by fluorescent lights, with minimal impact on light levels. More importantly the Energy Controller, in cutting energy bills by 30%, in general achieves a payback of approximately 1-2 years, based on average kilowatt-hour energy costs.

The Energy Controller uses a patented, soft switching auto transformer to switch from normal voltage once the lights have been turned on, to Economy Mode. Lighting then operates at a reduced voltage, still within the range of the power utility, with only a very small reduction in light output.

CLIPSAL®
*by* Schneider Electric

# Clipsal Security

intelligent buil

smart homes

lighting control solution

energy managemen

control systems

home automation

# Dome Cameras

The Clipsal series of low cost, dome cameras feature a high-sensitivity Super HAD CCD array, to provide sharp, high resolution, real time images. The 1/3 inch SONY CCD features an output resolution of 420 lines (some models offer higher output resolution) and signal to noise ratio of more than 48dB. The cameras are available in colour or black and white.

The dome cameras are designed to operate over a wide range of ambient light levels. In addition, incoming light is constantly monitored by the high speed digital circuit that automatically adjusts the electronic shutter speed between the range of 1/50 - 1/100,000 second, thus providing the best quality video output for moving targets over a wide range of lighting conditions.

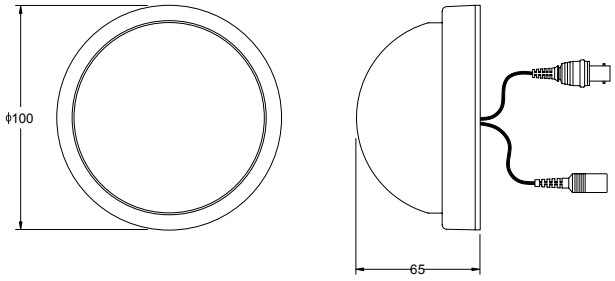
The cameras are constructed from an attractive tinted plastic housing and are suitable for indoor applications, such as commercial or residential premises.

The cameras are designed to operate from a 12VDC regulated power supply.

***5480/600BDA***

## TECHNICAL INFORMATION

| Catalogue Number | 5480/600BDA | 5480/420BDA | 5480/420CDA |
|---|---|---|---|
| Image Device | 1/3" SONY Super HAD CCD | | |
| Number of Pixels (H x V) | CCIR: 752 x 582<br>EIA: 768 x 494 | CCIR: 752 x 582<br>EIA: 510 x 492 | PAL: 500 x 582<br>NTSC: 510 x 492 |
| Sensing Area | 4.9mm x 3.7mm | | |
| Lens | 3.6mm/F 1.2 | | |
| Field of View | 92˚ | | |
| System of Signal | CCIR/EIA | | PAL/NTSC |
| Horizontal Resolution | 600 Lines | 420 Lines | |
| Electronic Shutter Speed | 1/50 - 1/100,000 sec (PAL and CCIR)<br>1/60 - 1/100,000 sec (EIA and NTSC) | | |
| S/N Ratio | More than 48dB | | |
| Minimum Illumination | 0.1 Lux/F1.2 | | 0.8 Lux/F1.2 |
| Video Output | 1.0V p-p, 75Ω | | |
| Video Connector | BNC (Female) | | |
| Power Requirement | DC 12V @ 300mA | | |
| Power Consumption | 100mA | | 120mA |
| Dimensions | ϕ 100mm x 65mm | | |
| Operating Temperature Range | -10˚C to 45˚C | | |
| Operating Humidity Range | 25 - 85% RH | | |




## PRODUCT FEATURES

- Sensor, 1/3 inch SONY Super HAD CCD.
- Resolution, 420 and 600 lines.
- System of signal, PAL/NTSC or CCIR/EIA.
- Available in colour and B/W.
- Video output, 1Vpp into 75 Ohms.
- Signal to noise ratio of more than 48dB.
- User adjustable field of view.
- Attractive enclosure.
- Wide range of operating temperatures.
- Suitable for indoor applications.
- Operates from a 12VDC regulated power supply.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5480/600BDA** | CCD Dome Camera, Dome, Black and White, High Resolution, 600 Lines |
| **5480/420BDA** | CCD Dome Camera, Dome, Black and White, 420 Lines |
| **5480/420CDA** | CCD Dome Camera, Dome, Colour, 420 Lines |

# Vandal Resistant Dome Cameras

The Clipsal series of vandal resistant, dome cameras feature a high-sensitivity Super HAD CCD array, to provide sharp, high resolution, real time images. The cameras feature an output resolution of 420 lines and signal to noise ratio of more than 48dB. The cameras are available in colour or black and white.

The dome cameras are designed to operate over a wide range of ambient light levels. In addition, incoming light is constantly monitored by a high speed digital circuit that automatically adjusts the electronic shutter speed between the range of 1/50 - 1/100,000 second, thus providing the best quality video output for moving targets over a wide range of lighting conditions.

The cameras are constructed with a rugged aluminum housing, which provides a high degree of mechanical strength to protect from tampering and misuse. The cameras are suitable for indoor applications, specifically for elevators and public areas.

The cameras are designed to operate from a 12VDC regulated power supply.

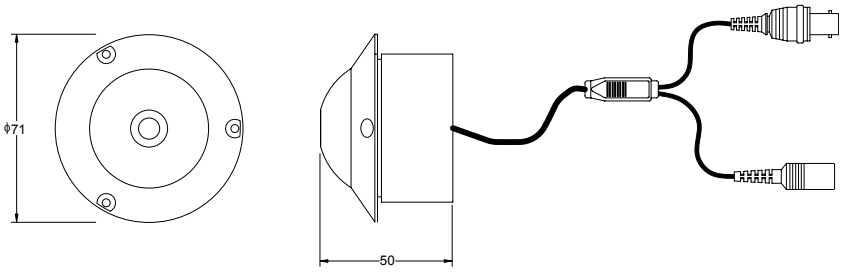
***5480/420BDVB***

## TECHNICAL INFORMATION

| Catalogue Number | **5480/420BDVB** | **5480/420CDVB** |
|---|---|---|
| Image Device | **1/3" SHARP CCD** | **1/3" SONY Super HAD CCD** |
| Number of Pixels (H x V) | **CCIR: 500 x 582<br>EIA: 510 x 492** | **PAL: 500 x 582<br>NTSC: 510 x 492** |
| Sensing Area | **4.9mm x 3.7mm** | |
| Lens | **2.8mm/F1.2** | |
| Field of View | **118˚** | |
| System of Signal | **CCIR/EIA** | **PAL/NTSC** |
| Horizontal Resolution | **420 Lines** | |
| Electronic Shutter Speed | **1/50 - 1/100,000 sec (PAL and CCIR)<br>1/60 - 1/100,000 sec (EIA and NTSC)** | |
| S/N Ratio | **More than 48dB** | |
| Minimum Illumination | **0.2 Lux/F1.2** | **0.8 Lux/F1.2** |
| Video Output | **1.0V p-p, 75Ω** | |
| Video Connector | **BNC (Female)** | |
| Power Requirement | **DC 12V @ 300mA** | |
| Power Consumption | **100mA** | **120mA** |
| Dimensions | **ϕ 71mm x 50mm** | |
| Operating Temperature Range | **-10˚C to 45˚C** | |
| Operating Humidity Range | **25 - 85% RH** | |

## PRODUCT FEATURES

- Sensor, 1/3 inch SHARP CCD and SONY Super HAD CCD.
- Resolution, 420 lines.
- System of signal, PAL/NTSC or CCIR/EIA.
- Available in colour and B/W.
- Video output, 1Vpp into 75 Ohms.
- Signal to noise ratio of more than 48dB.
- Constructed from a rugged aluminum housing.
- Wide range of operating temperatures.
- Suitable for indoor applications.
- Operates from a 12VDC regulated power supply.
- CE and C-Tick compliant.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5480/420BDVB** | CCD Camera, Vandal Resistant, Black and White, 420 Lines |
| **5480/420CDVB** | CCD Camera, Vandal Resistant, Colour, 420 Lines |

# Long Body Cameras

The Clipsal series of professional CCD cameras feature a high-sensitivity Super HAD CCD array, to provide sharp, high resolution, real time images. The 1/3 inch SONY CCD features an output resolution of 420 lines; (some models offer higher output resolution) and signal to noise ratio of more than 48dB. The cameras are available in colour or black and white.

The CCD cameras feature Automatic Gain Control (AGC), which improves the sensitivity of the cameras, resulting in the best image under a wide range of lighting conditions. In addition, incoming light is constantly monitored by a high speed digital circuit that automatically adjusts the electronic shutter speed between the range of 1/50 - 1/100,000 second, thus providing the best quality video output for moving targets over a wide range of lighting conditions.

The CCD cameras also feature user selectable Backlight Compensation (BLC). The BLC permits high quality definition of images on brightly backlit targets. The CCD cameras are compatible with a wide range of C and CS mount lenses available from third party suppliers. The cameras also provide an auto iris control and accept both video and DC drive auto iris lenses.

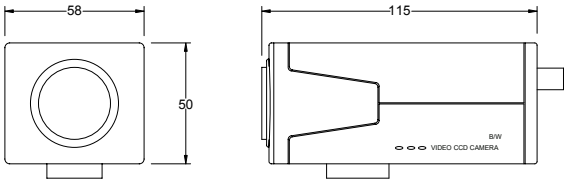
The cameras are constructed from an attractive aluminum housing, which provides a high degree of protection from the environment. The cameras are designed for indoor and outdoor applications.

The cameras are designed to operate from a 12VDC regulated power supply.

***5480/420BLB***

## TECHNICAL INFORMATION

| Catalogue Number | 5480/420BLB | 5480/600BLB | 5480/420CLB | 5480/480CLB |
|---|---|---|---|---|
| Image Device | 1/3" SONY Super HAD CCD | | | |
| Number of Pixels (H x V) | CCIR: 500 x 582<br>EIA: 510 x 492 | CCIR: 752 x 582<br>EIA: 768 x 494 | PAL: 500 x 582<br>NTSC: 510 x 492 | PAL: 752 x 582<br>NTSC: 768 x 494 |
| Sensing Area | 4.9mm x 3.7mm | | | |
| Lens Mount | CS/C Mount | | | |
| System of Signal | CCIR/EIA | | PAL/NTSC | |
| Horizontal Resolution | 420 Lines | 600 Lines | 420 Lines | 480 Lines |
| Electronic Shutter Speed | 1/50 - 1/100,000 sec (PAL and CCIR)<br>1/60 - 1/100,000 sec (EIA and NTSC) | | | |
| Electronic Shutter Control | NONE | | ON/OFF selectable | |
| S/N Ratio | More than 48dB | | | |
| Minimum Illumination | 0.05 Lux/F1.2 | 0.1 Lux/F1.2 | 0.8 Lux/F1.2 | 1.0 Lux/F1.2 |
| Backlight Compensation | ON/OFF selectable | | | |
| Auto Iris Lens | VIDEO/DC selectable | | | |
| White Balance | NONE | | Auto tracking white balance | |
| Video Output | 1.0V p-p, 75Ω | | | |
| Video Connector | BNC (Female) | | | |
| Power Requirement | DC 12V @ 300mA | | DC 12V @ 800mA | |
| Power Consumption | 150mA | | 235mA | |
| Dimensions | 58mm x 50mm x 115mm | | | |
| Operating Temperature Range | -10˚C to 45˚C | | | |
| Operating Humidity Range | 25 - 85% RH | | | |




## PRODUCT FEATURES

- Sensor, 1/3 inch SONY Super HAD CCD.
- Resolution, 420, 480 and 600 lines.
- System of signal, PAL/NTSC or CCIR/EIA.
- Available in colour and B/W.
- Video output, 1Vpp into 75 Ohms.
- Signal to noise ratio of more than 48dB.
- AGC control.
- Auto iris lens provision.
- Gamma correction.
- Wide range of operating temperatures.
- Suitable for indoor and outdoor applications.
- Operates from a 12VDC regulated power supply.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5480/420BLB** | CCD Camera, Long Body, Black and White, 420 Lines |
| **5480/600BLB** | CCD Camera, Long Body, Black and White, High Resolution, 600 Lines |
| **5480/420BCLB** | CCD Camera, Long Body, Colour, 420 Lines |
| **5480/480CLB** | CCD Camera, Long Body, Colour, High Resolution, 480 Lines |

# Weatherproof IR Cameras

The Clipsal series of weatherproof infrared cameras feature a high-sensitivity Super HAD CCD array, to provide sharp, high resolution, real time images. The 1/3 inch SONY CCD features an output resolution of 420 lines and signal to noise ratio of more than 48dB. The cameras are available in colour or black and white.

The CCD cameras feature an array of infrared LEDs, which automatically turn on at lighting levels below 0 Lux, to provide quality video images even at low light levels. In addition, incoming light is constantly monitored by a high speed digital circuit that automatically adjusts the electronic shutter speed between the range of 1/50 - 1/100,000 second, thus providing the best quality video output for moving targets over a wide range of lighting conditions.

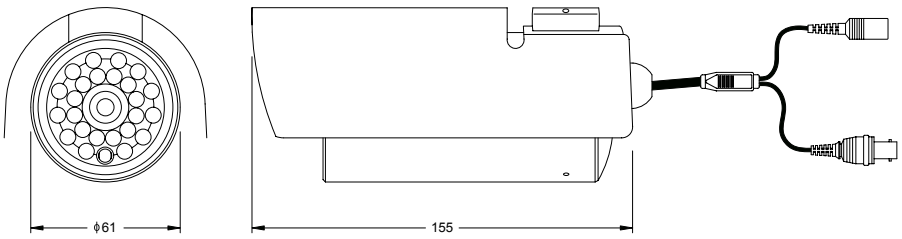
The cameras are constructed with a sealed, rugged aluminum housing, which provides a high degree of protection from the environment and the units feature an IP rating of 56. The cameras are designed for indoor and outdoor applications.

The cameras are designed to operate from a 12VDC regulated power supply.

***5480/420BLA***

## TECHNICAL INFORMATION

| Catalogue Number | **5480/420BLA** | **5480/420CLA** |
|---|---|---|
| Image Device | **1/3" SONY Super HAD CCD** | |
| Number of Pixels (H x V) | **CCIR: 500 x 582<br>EIA: 510 x 492** | **PAL: 500 x 582<br>NTSC: 510 x 492** |
| Lens | **6mm/F1.5** | |
| Field of View | **60˚** | |
| System of Signal | **CCIR/EIA** | **PAL/NTSC** |
| Horizontal Resolution | **420 Lines** | |
| Electronic Shutter Speed | **1/50 - 1/100,000 sec (PAL and CCIR)<br>1/60 - 1/100,000 sec (EIA and NTSC)** | |
| S/N Ratio | **More than 48dB** | |
| Usable Illumination | **0 Lux (infrared lamps turn on)** | |
| Sync System | **Internal Synchronization** | |
| Gamma Characteristic | **0.45** | |
| IP Rating | **IP56** | |
| Video Output | **1.0V p-p, 75Ω** | |
| Video Connector | **BNC (Female)** | |
| Power Requirement | **DC 12V @ 800mA** | |
| Power Consumption | **120mA<br>(When the infrared Lamps turn on maximum consumption is 300mA)** | |
| Housing | **Aluminum Alloy** | |
| Infrared Wavelength | **850nm** | |
| IR Irradiance Distance | **30m** | **25m** |
| IR Lamps Switch Threshold | **Sunset - Turn On, Sunrise - Turn Off** | |
| Dimensions | **ϕ 61mm x 155mm** | |
| Operating Temperature Range | **-10˚C to 45˚C** | |
| Operating Humidity Range | **25 - 85% RH** | |




## PRODUCT FEATURES

- Sensor, 1/3 inch SONY Super HAD CCD.
- Resolution, 420 lines.
- System of signal, PAL/NTSC or CCIR/EIA.
- Available in colour and B/W.
- Video output, 1Vpp into 75 Ohms.
- Signal to noise ratio of more than 48dB.
- Infrared illumination automatically turns on at 0 Lux.
- IP56 rated.
- Constructed from a rugged aluminum housing.
- Features shade cover.
- Wide range of operating temperature.
- Suitable for indoor and outdoor applications.
- Operates from a 12VDC regulated power supply.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5480/420BLA** | CCD Camera, Weatherproof IR, Black and White, 420 Lines, IP56 |
| **5480/420CLA** | CCD Camera, Weatherproof IR, Colour, 420 Lines, IP56 |

# Bullet Cameras

The Clipsal series of discrete, low profile, bullet cameras feature a high-sensitivity CCD array, to provide sharp, high resolution, real time images. The CCD array features an output resolution of 420 lines and signal to noise ratio of more than 48dB. The cameras are available in colour or black and white.

The bullet cameras are designed to operate over a wide range of ambient light levels. In addition, incoming light is constantly monitored by a high speed digital circuit that automatically adjusts the electronic shutter speed between the range of 1/50 - 1/100,000 second, thus providing the best quality video output for moving targets over a wide range of lighting conditions.

The cameras are constructed with a rugged aluminum housing, which provides a high degree of mechanical strength to protect from tampering and misuse and the units feature an IP rating of 56. The cameras are suitable for indoor and outdoor applications.

The cameras are designed to operate from a 12VDC regulated power supply.

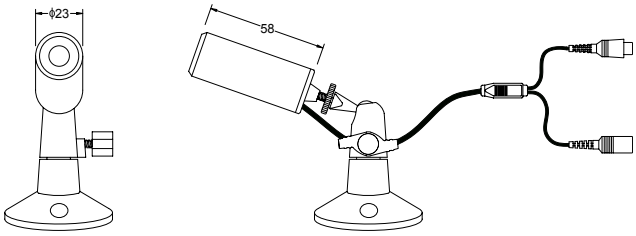
***5480/420BBA***

## TECHNICAL INFORMATION

| Catalogue Number | **5480/420BBA** | **5480/420CBA** |
|---|---|---|
| Image Device | **1/3" SHARP CCD** | **1/4" SONY Super HAD CCD** |
| Number of Pixels (H x V) | **CCIR: 500 x 582<br>PAL: 500 x 582** | **EIA: 512 x 492<br>NTSC: 510 x 492** |
| Sensing Area | **4.9mm x 3.7mm** | **3.6mm x 2.7mm** |
| Lens | **3.6mm/F1.2** | |
| Field of View | **92˚** | |
| System of Signal | **CCIR/EIA** | **PAL/NTSC** |
| Horizontal Resolution | **420 Lines** | **420 Lines** |
| Electronic Shutter Speed | **1/50 - 1/100,000 sec (CCIR and PAL)<br>1/60 - 1/100,000 sec (EIA and NTSC)** | |
| S/N Ratio | **More than 30dB** | **More than 48dB** |
| Minimum Illumination | **1.0 Lux/F1.2** | **1.0 Lux/F1.2** |
| IP Rating | **IP56** | |
| Housing | **Aluminum** | |
| Video Output | **1.0V p-p, 75Ω** | |
| Video Connector | **RCA (Female)** | |
| Power Requirement | **DC 12V @ 300mA** | |
| Power Consumption | **90mA** | **111mA** |
| Dimensions | **ϕ 23mm x 58mm** | **ϕ 23mm x 61mm** |
| Operating Temperature Range | **-10˚C to 45˚C** | |
| Operating Humidity Range | **25 - 85% RH** | |

## PRODUCT FEATURES

- Sensor, 1/3 inch SHARP CCD and SONY Super HAD CCD.
- Resolution, 420 lines.
- System of signal, PAL/NTSC or CCIR/EIA.
- Available in colour and B/W.
- Video output, 1Vpp into 75 Ohms.
- Signal to noise ratio of more than 48dB.
- Supplied with mounting bracket.
- Constructed from a rugged aluminum housing.
- Wide range of operating temperatures.
- Suitable for indoor and outdoor applications.
- IP56 rated.
- Operates from a 12VDC regulated power supply.
- CE and C-Tick compliant.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5480/420BBA** | CCD Camera, Bullet, Black and White, 420 Lines, IP56 |
| **5480/420CBA** | CCD Camera, Bullet, Colour, 420 Lines, IP56 |

# Digital Modulators

Clipsal's range of video modulators consists of single, dual and quad channel models. Modulators are available as panel mount versions or set top box design.

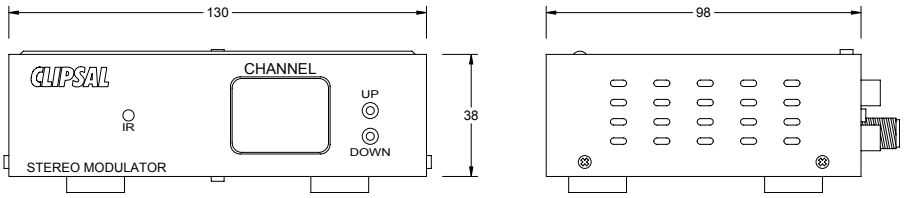
The single channel video modulators are available in mono or stereo audio output.

Modulators feature digitally tuned circuits, LED display and the user can select over a wide range of UHF channels. The digitally tuned modulators feature an internal quartz crystal reference oscillator and phase locked loop circuitry that ensures drift-free performance and stable channel selection.

***E8071VMP***

## TECHNICAL INFORMATION

| Catalogue Number | E8071VMS | E8071VMPE | 8072VMPIR | E8074VMPIR |
|---|---|---|---|---|
| Operating Voltage | 12VDC @ 1000mA | | | |
| Number of Inputs | 1 | 1 | 2 | 4 |
| Video Connectors | F-Type (female) | | | |
| Video Input Termination | 75Ω (normal mode), >1MΩ (loop through mode) | | | |
| Audio | 1Vrms @ 47KΩ (monaural) | | | |
| Audio Output | Stereo 1 | | | |
| Differential Gain | 4% | | | |
| Differential Phase | <4% | | | |
| Signal/Noise Ratio | 54dB 55dB | | | |
| Modulation | PAL | | | |
| Channel Ranges | UHF 21-29 UHF 28-67 | | | |
| Output Level | 25dBmV | | | |
| IR Emitter Output | No | No | Yes (2) | Yes (4) |
| Tuning Method | Digital (push button) | | | |
| Mounting | Set top box | | | |
| Operating Temperature Range | 0˚C to 45˚C | | | |
| Operating Humidity Range | 0 - 90% RH | | | |




***E8071VMS illustrated***

## PRODUCT FEATURES

- Available as single, dual and quad channel versions.
- 25dBmV output level.
- Dual and quad modulators feature IR emitter outputs.
- Single channel available in mono or stereo audio output.
- Push button programming.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E8071VMP** | Modulator, Single, Mono, Set Top Box |
| **E8071VMS** | Modulator, Single, Stereo, Set Top Box |
| **E8072VMPIR** | Modulator, Dual, Mono, Set Top Box |
| **E8074VMPIR** | Modulator, Quad, Mono, Set Top Box, IR Emitters |

# Quad Processors

The Clipsal range of quad video processors, provide an effective surveillance system for CCTV applications. The quad system video processor permits up to four surveillance signals to be displayed simultaneously onto a single monitor.

The quad processors support multiple display modes, including, single, quad or sequentially switched. The quad switches are available in either black and white or colour video output models.

The quad video processors feature video loss detection with alarming. In addition, the units feature real time display of time and date, and picture adjustment.

The quad video processors are suitable for residential and commercial applications and form part of the CCTV solution in these premises.

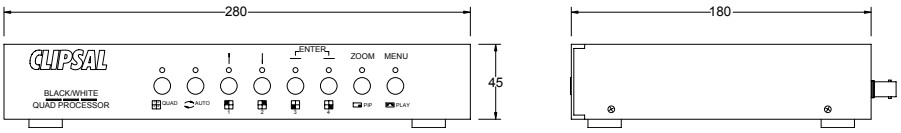
The units are of compact dimensions and are designed to operate from a 12VDC plug pack. In addition, they are designed to operate over a wide temperature and humidity range, making these versatile and reliable products.

***5484VPBA***

***5484VPCA***

## TECHNICAL INFORMATION

| Catalogue Number | 5484VPCA | 5484VPBA |
|---|---|---|
| Video Input | 4 x channel camera, 1 x VCR, BNC | |
| Video Output | 1 x monitor, 1 x VCR, BNC, 1Vp-p, 75Ω | |
| Video Loss Signal | Yes | |
| Signal System | PAL or NTSC | CCIR or EIA |
| Picture Refresh Rate | PAL: 25 fields/sec<br>NTSC: 30 fields/sec | CCIR: 25 fields/sec<br>EIA: 30 fields/sec |
| Resolution | PAL: 762 x 576,<br>NTSC: 762 x 480 | CCIR: 762 x 576,<br>EIA: 762 x 480 |
| Display Mode | Full Screen, Quad,<br>POP/PIP and Auto Switch | Full Screen, Quad,<br>POP/PIP, Auto Switch,<br>Freeze and 2x Zoom |
| Scan Rate | 8-bit/54MHz | 8-bit/25MHz |
| Auto Switch Time | 1 - 10 seconds | 1 - 99 seconds |
| Real Time Display | Time and Date | |
| Picture Adjustment | Yes | |
| Motion Detection | No | Yes |
| 2x Zoom Mode | No | Yes |
| OSD Menu | Yes | |
| Event Logs | Startup, Loss Alarm | Startup, Loss Alarm, Motion Detection |
| Input Power | 12VDC @ 500mA | |
| Dimensions | 280mm(W) x 180mm(H) x 45mm(D) | |
| Operating Temperature Range | -5˚C to 45˚C | |
| Operating Humidity Range | Below 85% RH | |




***5484VPBA illustrated***

## PRODUCT FEATURES

- Multiple display modes, single, quad and sequential switching function.
- Excellent picture quality.
- Video signal PAL/NTSC or CCIR/EIA
- On screen display (OSD) menu.
- Video loss detection with alarming.
- Real time display or time and date.
- 4 x video camera inputs.
- 1 x VCR record output and 1 x VCR video signal input.
- User selectable auto switch time.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5484VPBA** | Quad Processor, Black and White |
| **5484VPCA** | Quad Processor, Colour |

# Accessories for Video Surveillance Equipment
## Mounting Brackets

Clipsal offers two types of mounting brackets for its range of indoor and outdoor CCD cameras.

The all metal bracket features a chrome finish and an adjustable mounting position.

The all plastic bracket is manufactured from a UV stabilized plastic for indoor and outdoor use, and features an adjustable mounting position.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5480MBA** | Mounting Bracket, Metal |
| **5480MBB** | Mounting Bracket, Plastic |

***5480MBA***

***5480MBB***

# Accessories for Video Surveillance Equipment
## Power Supply

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5400P12/800BS** | Switching Power Supply, 12VDC @ 800mA, British Standard Plug Pack |

***E5400P12/800BS***

# Video Intercom Stations

The 5480 series intercom systems are designed for stand-alone, single private network applications and are ideal for residential and commercial premises.

The video intercom phone lets you answer the door from anywhere within your home or building. They are designed to provide a user interface between the visitor and home or building owner. The ability to see and talk to visitors before the front door is opened ensures safety and peace of mind for the home or building occupants.

This advanced security device consists of a door station which is installed at the front entrance of a home or building, and a video intercom station located inside the premises. The video intercom displays a clear, high resolution image and features a door release mechanism for remote door opening.

Other added features include connecting multiple intercom stations to a single door station or simply connecting multiple intercom stations together for a handy room-to-room intercom system.

The video intercoms are fully compatible with both the surface and flush mount door station.

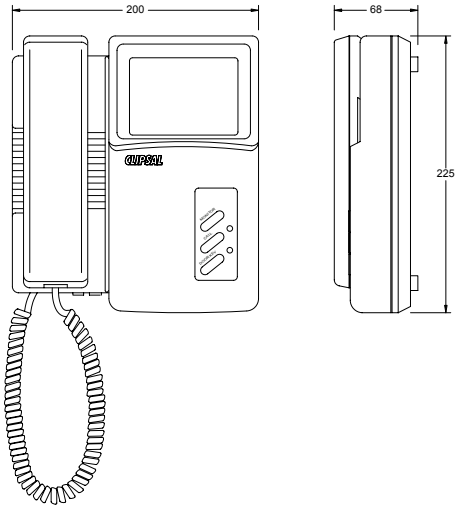
***5480VPC***

## TECHNICAL INFORMATION

| Catalogue Number | **5480VPC** | **5480VPB** |
|---|---|---|
| LCD Screen Size | **100mm (4") Colour TFT LCD** | **100mm (4") B/W Flat Tube** |
| Picture Distortion | **< 5%** | |
| Signal to Noise Ratio | **More than 70dB** | |
| Number of Pixels | **105,600** | **–** |
| Power Consumption | **Standby 0.2W, Maximum 9W** | |
| Power Requirement | **DC 18V @ 800mA** | |
| Call Signal | **Electronic chime** | |
| Installation Location | **For indoor use only (hanging type)** | |
| Materials | **ABS Plastic, White** | |
| Horizontal Resolution | **–** | **420 Lines** |
| External Dimensions | **225mm x 200mm x 68mm** | |
| Maximum Number of Intercom Stations | **4** | |
| Time Out Period | **3 minutes or 50 seconds** | |
| Operating Temperature Range | **-10˚C to 40˚C** | |
| Operating Humidity Range | **45 - 85% RH** | |

## PRODUCT FEATURES

- 4" TFT LCD colour or B/W Flat Tube video screen.
- Remote door release mechanism.
- Mounting bracket included.
- Handy room-to-room intercom feature.
- 18VDC operation, no mains connection.
- Simple 4-wire connection.
- CE and C-Tick compliant.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5480VPC** | Intercom, Video, Colour, 18VDC Operation |
| **5480VPB** | Intercom, Video, Black and White, 18VDC Operation |

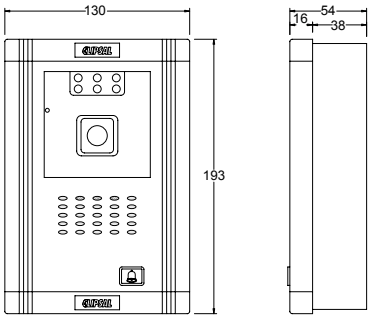
# Video Door Stations

Door Stations are available as either surface or flush mount. The units are weather resistant and feature a high resolution CCD Camera and infrared LEDs for night operation.

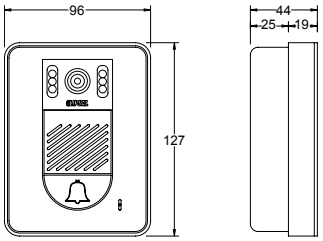
The Door Stations feature a Call Button, built-in speaker and microphone.

## TECHNICAL INFORMATION

| Catalogue Number | 5480DSCA | 5480DSBA | 5480DSCB | 5480DSBB |
|---|---|---|---|---|
| Horizontal Resolution | 450 Lines | | | |
| Image Device | 1/3" CCD | | | |
| Minimum Illumination | 0.2 Lux | | | |
| Materials | Extruded aluminum metal enclosure, silver | | UV stablised plastic, brown | |
| External Dimensions | 193mm x 130mm x 54mm | | 127mm x 96mm x 44mm | |
| Installation Location | For indoor and outdoor use (rain resistant), it is recommended that the equipment is installed in a weather protected environment for longer service life. | | | |
| Mounting | Flush | | Surface | |
| Dimensions | 130mm(W) x 193mm(H) x 54mm(D) | | | |
| Operating Temperature Range | -10˚C to 40˚C | | | |
| Operating Humidity Range | 45 - 85% RH | | | |




*5480DSCA illustrated*




*5480DSBB illustrated*

*5480DSCA*

*5480DSBB*

## PRODUCT FEATURES

- White LED illumination for night use.
- High-sensitivity CCD camera.
- Weather resistant unit.
- 450 line resolution.
- Built-in microphone speaker.
- Manufactured from durable materials.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| 5480DSCA | Door Station, Colour, Weather Resistant, Flush Mount, 450 Lines |
| 5480DSBA | Door Station, Black and White, Weather Resistant, Flush Mount, 450 Lines |
| 5480DSCB | Door Station, Colour, Weather Resistant, Surface Mount, 450 Lines |
| 5480DSBB | Door Station, Black and White, Weather Resistant, Surface Mount, 450 Lines |

# Audio Intercom Stations

The 5480 series audio intercom station is designed for stand-alone, single private network applications and is ideal for residential and commercial premises.

The audio intercom provides a high quality audio connection between the visitor and homeowner. The audio handset located inside the premises is used to converse with the visitor, it features a door release mechanism to remotely unlock doors fitted with electronic strikes and has a handy intercom feature where multiple handsets may be networked for a handy room-to-room intercom system.

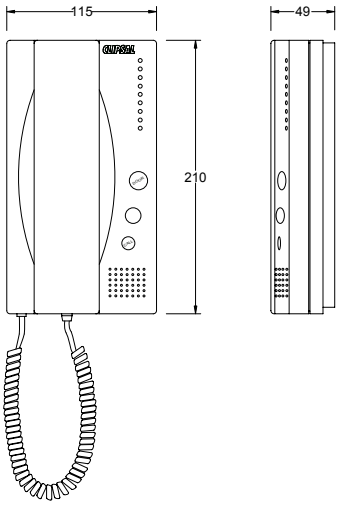
The intercom system is designed to provide a user interface between a visitor and home or building owner. The ability to talk to visitors before the front door is opened ensures safety and peace-of-mind for the home or building occupants.

The audio intercom is fully compatible with both the surface or flush mount door station.

*5480AP*

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5480AP** |
| Power Requirement | **DC 18V @ 800mA** |
| Call Signal | **Electronic chime** |
| Remote Door Release Button | **Yes** |
| Intercom Call Button | **Yes** |
| Installation Location | **For indoor use only (hanging type)** |
| Materials | **ABS Plastic, white** |
| External Dimensions | **210mm x 115mm x 49mm** |
| Maximum Number of Intercom Stations | **4** |
| Time Out Period | **3 minutes** |
| Dimensions | **115mm(W) x 210mm(H) x 49mm(D)** |
| Operating Temperature Range | **-10˚C to 40˚C** |
| Operating Humidity Range | **45 - 85% RH** |




## PRODUCT FEATURES

- Attractive European infuenced design and styled handset.
- Gentle electronic chime call sound.
- Multiple handsets may be connected to a single door station.
- Remote door release mechanism.
- Handy room-to-room intercom feature.
- 18VDC operation, no mains connection.
- Simple 4-wire connection.
- CE and C-Tick compliant.

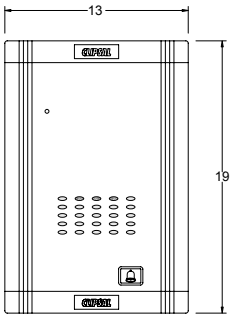
| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5480AP** | Intercom, Audio, 18VDC Operation |

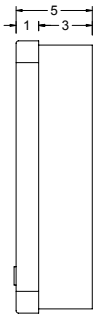
# Audio Door Stations

Door Stations are available as either surface or flush mount. The units are weather resistant and feature a Call Button, built-in speaker and microphone.

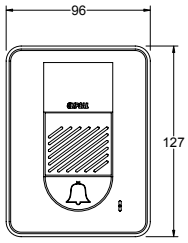
## TECHNICAL INFORMATION

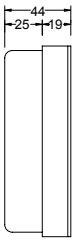
| Catalogue Number | 5480DSA | 5480DSB |
|---|---|---|
| Materials | Extruded aluminum metal enclosure, silver | UV stablised plastic, brown |
| Built-in Microphone | Yes | |
| Built-in Speaker | Yes | |
| Call Button | Yes | |
| External Dimensions | 193mm x 130mm x 54mm | 127mm x 96mm x 44mm |
| Installation Location | For indoor and outdoor use (rain resistant). It is recommended that the equipment is installed in a weather protected environment for longer service life. | |
| Mounting | Flush | Surface |
| Dimensions | 130mm(W) x 193mm(H) x 54mm(D) | 96mm(W) x 127mm(H) x 44mm(D) |
| Operating Temperature Range | -10˚C to 40˚C | |
| Operating Humidity Range | 45 - 85% RH | |




*5480DSA illustrated*




*5480DSB illustrated*

*5480DSA*

*5480DSB*

## PRODUCT FEATURES

- Built-in microphone and speaker.
- Weather resistant construction.
- Surface or flush mount options.
- CE and C-Tick compliant.
- Operates over a wide temperature and humidity range.
- Simple 4-wire connection.
- Call request can still be made even if handset is of hook.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| 5480DSA | Door Station, Audio, Weather Resistant, Flush Mount |
| 5480DSB | Door Station, Audio, Weather Resistant, Surface Mount |

# MinderPRO Premise Automation Controller

The 5302CU series of Premise Automation Controllers are intelligent units for management of residential and commercial buildings with applications in energy effciency, security, lighting control and event scheduling.

The controller features a powerful processor and is suited at applications where specific reactions are required to particular events. The unit is simple to install, program and use, and features a voice prompt menu that navigates the user through the various menus and options. The user can control any device connected to the controller, via the local keypad or any dial tone phone.

The premise controller features an 8-zone security system, which may be expanded to 64 zones. The controller features a telephone dialler and supports central monitoring to a base station. The telephone dialler and voice engine also permits a handy duplex intercom station, between keypads and between keypads and a phone.

Scheduling of events and time management control of devices is facilitated by the on board real time clock. Several time programs can run simultaneously on the controller.

The controller can be interfaced to third party systems such as the C-Bus control system realising an integrated lighting control solution. In addition, the premise controller supports EZinstall and the X-10 power line standard.

The Clipsal MinderPRO premise automation controller is specifically designed for residential and small commercial automation applications. With the addition of the Clipsal PremiseGateway™, the controller can be web-enabled realising control of devices over the Internet, via a secure encrypted connection.

In addition, the Clipsal MinderPRO controller PCB is available as a separate item for those installations which require a custom enclosure.

***5302TCU8/8***

## PRODUCT FEATURES

- 8 inputs and 8 outputs zones, expandable to 64 inputs and 64 outputs.
- 365 days real time clock for time scheduling and event management.
- Supports the C-Bus, EZinstall and X-10 protocols.
- Internet enabled via the Clipsal PremiseGateway™.
- Programmable from the keypad or by personal computer.
- Supports central monitoring station formats.
- Voice prompt menu and supports any language.
- User programmable voice library.
- Intercom function between keypads and phones.
- Battery backup for uninterrupted operation.
- Infrared engine for the control of audiovisual and air-conditioner appliances.
- 16 unique users, supported.
- 8 voice mailboxes, supported.
- Sturdy metal enclosure.
- C-Bus Enabled, with factory certification.
- CE and A-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5302TCU16/16** | Premise Automation Security Controller, 16 Inputs/16 Outputs, 16VAC @ 3A Transformer, Mechanical Enclosure Included |
| **5302TCU24/24** | Premise Automation Security Controller, 24 Inputs/24 Outputs, 16VAC @ 3A Transformer, Mechanical Enclosure Included |
| **5302TCU32/32** | Premise Automation Security Controller, 32 Inputs/32 Outputs, 16VAC @ 3A Transformer, Mechanical Enclosure Included |
| **5302T16/16KP** | Premise Automation Security Controller, 16 Inputs/16 Outputs, 16VAC @ 3A Transformer, Keypad and Mechanical Enclosure Included |
| **5302T24/24KP** | Premise Automation Security Controller, 24 Inputs/24 Outputs, 16VAC @ 3A Transformer, Keypad and Mechanical Enclosure Included |
| **5302T32/32KP** | Premise Automation Security Controller, 32 Inputs/32 Outputs, 16VAC @ 3A Transformer, Keypad and Mechanical Enclosure Included |
| **5302T8/8KP** | Premise Automation Security Controller, 8 Inputs/8 Outputs,16VAC @ 3A Transformer, Keypad and Mechanical Enclosure Included |
| **5302TCU8/8** | Premise Automation Security Controller, 8 Inputs/8 Outputs,16VAC @ 3A Transformer, Mechanical Enclosure Included |
| **5388CU/2** | MinderPRO Controller PCB, 8 Inputs/8 Outputs |

# MinderPRO Premise Automation Controller

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5302TCU8/8** |
| Inputs | **8 digital (protected loop), surge protected** |
| Outputs | **8 open collector (12V) pulsed, latched and infrared** |
| Keypads | **Maximum 8 keypads per base controller** |
| Door Stations | **Maximum 3 door stations per base controller** |
| Power Supply | **Supplied with 16VAC @ 3A transformer** |
| Power Supervision | **Supervised mains power failure and battery low condition** |
| Auxiliary Power Output | **12VDC @ 1A (max)** |
| Battery Backup | **12VDC @ 7A Hr (not included)** |
| Central Monitoring | **All major pulse formats, Surgard, Contact ID** |
| Siren Tones | **20 siren patterns, 2 sound levels, user programmable** |
| Siren and Strobe Output | **Yes** |
| Telephone Dialler | **8 numbers** |
| Event Log | **250 entries** |
| User Codes | **16 unique codes** |
| Mail Boxes | **8 unique mail boxes** |
| Alarm Types | **31** |
| Answering Machine | **10 minutes, uses solid state memory** |
| Time Programs | **16 independent programs** |
| Responses/Macros | **255 (including C-Bus devices)** |
| C-Bus | **Requires addition of C-Bus/serial interface 5350CB** |
| X-10 | **Standard** |
| EZinstall ULTI | **Requires the addition of serial/ULTI interface card** |
| Internet Connection | **Requires addition of serial interface 5350UCM, use with Clipsal PremiseGateway™** |
| Controller Case | **Wall mounted, mild steel, with key lock** |
| Dimensions | **310mm(W) x 350mm(L) x 95mm(D)** |
| Weight | **4.7kg** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **35 - 85% RH** |

# LED Keypad

The Clipsal MinderPRO Keypad provides a user-friendly interface to the Premise Controller. The Keypad is used to program, control and monitor status of devices connected to the controller and supports up to 16 unique users with one-touch arming feature for 'Away', 'Night', 'Day' and 'Vacation' modes.

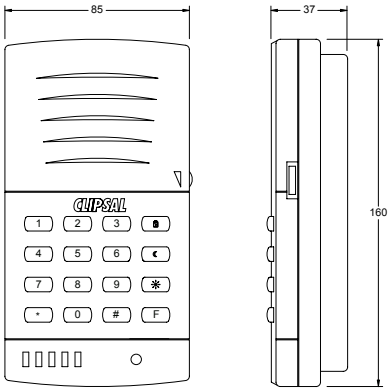
In addition, the Keypad features a built-in microphone input that can be used to record voice messages and speaker output to annunciate voice messages and instructions. The Keypad is equipped with status indicators to report the state of mains power, battery power, security mode and message waiting notification. An infrared receiver also enables the control menu to be controlled from a PDA device.

The front panel of the Keypad comprises of 16 soft touch backlit keys and supports 64 input zones. The zone status is reported through the Keypad via an audio message.

*5316KP*

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5316KP** |
| Backlighting | **Yes, programmable** |
| One Touch Arming | **Yes, programmable** |
| Audio | **Built-in microphone, speaker and volume adjust** |
| Status Indicators | **Battery, mains power, message, security off/armed** |
| Number of Units | **Up to 8 Keypads per system** |
| Intercom | **Between Door Station, LED or LCD Keypads and phone** |
| Panic Buttons | **2 key panic and fire button** |
| IR Receiver | **Control from PDA device** |
| Tactile Keys | **16, soft touch, backlit** |
| Colours | **White** |
| Dimensions | **85mm(W) x 160mm(H) x 33mm(D)** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **35 - 85% RH** |




## PRODUCT FEATURES

- One touch arming, simple-to-use.
- Built-in voice recorder and answering machine, for reminders and message annunciation.
- Voice messaging programmable in any language.
- Built-in infrared receiver for control from a PDA device.
- Backlight push buttons, for night operation.
- Simple 4-wire connection.
- Premise Controller, supports up to 8 Keypads.
- Attractive finish and appearance.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5316KP** | Keypad, LED |

# LCD Keypad

The Clipsal MinderPRO Keypad provides a user-friendly interface to the Premise Controller. The Keypad is used to program, control and monitor status of devices connected to the controller and supports up to 16 unique users with one-touch arming feature for 'Away', 'Night', 'Day' and 'Vacation' modes.

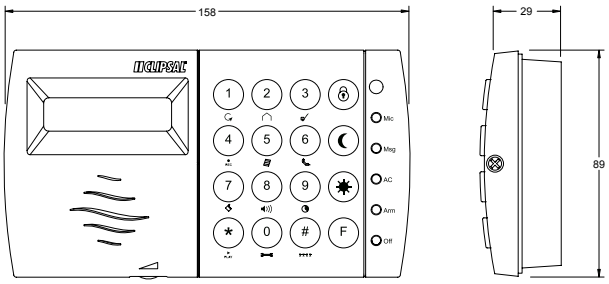
The Keypad's backlit LCD screen can display up to 2 rows of 16 characters. In addition, the keypad features a built-in microphone input that can be used to record voice messages and speaker output to annunciate voice messages and instructions. The Keypad is equipped with status indicators to report the state of mains power, battery power, security mode and message waiting notification. An infrared receiver also enables the control menu to be controlled from a PDA device.

The front panel of the Keypad comprises of 16 soft touch backlit keys and supports 64 input zones. The zone status is reported through the Keypad via an audio message. The LCD Keypad is interchangeable and operates with the LED Keypad. The two can be connected to the same controller at any time.

***5316KPH216***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5316KPH216** |
| Display | **LCD, 2 rows of 16 characters** |
| Backlighting | **Yes, programmable** |
| One Touch Arming | **Yes, programmable** |
| Audio | **Built-in microphone, speaker and volume adjust** |
| Status Indicators | **Battery, mains power, message, security off/armed** |
| Number of Units | **Up to 8 Keypads per system** |
| Intercom | **Between Door Station, LED or LCD Keypads and phone** |
| Panic Buttons | **2 key panic and fire button** |
| IR Receiver | **Control from PDA device** |
| Tactile Keys | **16, soft touch, backlit** |
| Colours | **White** |
| Dimensions | **160mm(W) x 85mm(H) x 33mm(D)** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **35 - 85% RH** |




## PRODUCT FEATURES

- Large, easy-to-read LCD display.
- One touch arming, simple-to-use.
- Built-in voice recorder and answering machine, for reminders and message annunciation.
- Voice messaging programmable in any language.
- Built-in infrared receiver for control from a PDA device.
- Backlight push buttons, for night operation.
- Simple 4-wire connection.
- Premise Controller, supports up to 8 Keypads.
- Compatible with the Clipsal MinderPRO LED Keypad.
- Attractive finish and appearance.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5316KPH216** | Keypad, LCD, Horizontal |

# Door Station

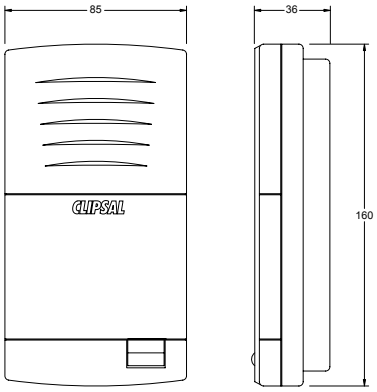
The Clipsal MinderPRO Door Station used in conjunction with the Ringer Module (5350RG/2) provides a handy intercom with the Keypad or house phone.

The Ringer Module is used to connect house phones to the Keypad and Door Station so that when a visitor initiates a call from the Door Station, the homeowner can answer from the Keypad or any phone in the house.

If the homeowner is away, the Clipsal MinderPRO can be programmed to either record a message on the Keypad to be played back at a later time, or to initiate a call to a hand phone for a remote intercom session.

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5301DS** |
| Audio | **Built-in microphone and speaker output** |
| Bell Press | **Yes** |
| Intercom | **Between Keypad, house phone or hand phone** |
| Colours | **White** |
| Dimensions | **85mm(W) x 160mm(H) x 33mm(D)** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **35 - 85% RH** |




***5301DS illustrated***

***5301DS***

## PRODUCT FEATURES

- Built-in microphone and speaker.
- Can be used as a handy room-to-room intercom system.
- Incoming call may be directed to Keypad, house or hand phone or message recording.
- Doorbell feature.
- Simple 4-wire connection.
- Premise Controller, supports up to 3 Door Stations.
- Attractive finish and appearance.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5301DS** | Door Station |
| **5350RG/2** | Universal Ringer Module |

# Expansion Modules, Local

The Expansion Modules work in conjunction with the Clipsal MinderPRO Premise Automation Controller or Slave Expansion Panels to increase the input/output capacity of the base unit and increase the number of zones that may be monitored or controlled by the Premise Controller.

The Local Expansion Modules are I/O units and are available with 8 inputs, 8 inputs/8 outputs or 16 inputs. Each module is designed to fit into the Premise Controller or Slave Expansion Panel.

All inputs are surge protected from static discharge and all outputs are 12V open collector type.

With the addition of these Expansion Modules the total capacity of the Premise Controller can be expanded up to 64 inputs and 64 outputs.

***5352EXL8/8***

## TECHNICAL INFORMATION

| Catalogue Number | 5352EXL8/8 | 5352EXL8/0 | 5352EXL16/0 |
|---|---|---|---|
| Inputs | **8 digital (protected loop) surge protected** | | **16 digital (protected loop) surge protected** |
| Outputs | **8 open collector (12V) pulsed, latched and infrared** | **0** | |
| Power Supply | **Powered from Slave Expansion Unit or Premise Automation Controller** | | |
| Dimensions | **108mm x 88mm** | | |
| Operating Temperature Range | **0˚C to 40˚C** | | |
| Operating Humidity Range | **35 - 85% RH** | | |

## PRODUCT FEATURES

- The Local Expansion modules are available with 8 inputs, 8 inputs/8 outputs or 16 inputs.
- The Local Expansion modules are designed to fit into the Clipsal MinderPRO Premise Automation Controller or Slave Expansion Panel.
- All inputs are surge protected.
- Expands the system capacity to 64 inputs and 64 outputs.
- Features removable terminal blocks for ease of wiring and maintenance.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5352EXL8/8** | Expansion Module, Local, 8 Inputs/8 Outputs |
| **5352EXL8/0** | Expansion Module, Local, 8 Inputs |
| **5352EXL16/0** | Expansion Module, Local, 16 Inputs |

# Expansion Module, Slave

The Expansion Module work in conjunction with the Clipsal MinderPRO Premise Automation Controller to increase the input/output capacity of the base unit and increase the number of zones that may be monitored or controlled by the Premise Controller.

The Slave Expansion Module is an I/O unit, featuring 8 inputs and 8 outputs and is supplied with a mechanical enclosure with space for one Local Expansion Card and battery backup. In addition, Local Expansion Cards are designed to fit into the Premise Controller or Slave Expansion Panel and are available in various I/O configurations.

With the addition of these Expansion Modules the total capacity of the Premise Controller can be expanded up to 64 inputs and 64 outputs.

The Expansion Panel PCB is a seperate add-on and is available in 8 inputs and 8 outputs configuration.

***5352TEXS8/8***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5352TEXS8/8** |
| Inputs | **8 digital (protected loop) surge protected** |
| Outputs | **8 open collector (12V) pulsed, latched and infrared** |
| Power Supply | **Supplied with 16VAC @ 3A transformer** |
| Battery Backup | **12VDC @ 7A Hr (not included)** |
| Remote Expansion Bus | **RS485** |
| Mechanical Enclosure | **Wall mounted, mild steel, with key lock** |
| Dimensions | **310mm(W) x 350mm(H) x 95mm(D)** |
| Operating Temperature Range | **0˚C to 40˚C** |
| Operating Humidity Range | **35 - 85% RH** |

## PRODUCT FEATURES

- The Slave Expansion unit is supplied with a mechanical enclosure, power supply* and provision for battery backup. (*T versions only)
- The Slave Expansion unit features 8 inputs (protected loop) and 8 open collector outputs.
- A maximum of 3 Slave Expansion modules may be connected to the Premise Automation Controller.
- All inputs are surge protected.
- Expands to 64 inputs and 64 outputs.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5352TEXS8/8** | Expansion Panel, Slave, 8 Input/8 Output, 16VAC @ 3A Transformer, Mechanical Enclosure Included |
| **5388SE/2** | Slave Expansion PCB, 8 Inputs/8 Outputs |

# Interface Modules

The Clipsal MinderPRO Premise Controller supports integration to third party systems via the serial RS232 interface.

The controller supports up to 8 serial interface modules, connecting systems such as Clipsal C-Bus Control System, EZinstall and the Clipsal PremiseGateway™.

The serial interface modules which are located in the controller enclosure are powered from the auxiliary power supply.

The general purpose serial interface connects a PC to the controller for PC programming. This interface also features an IR learner to read and store third party IR codes that are downloaded to the controller.

The C-Bus serial interface provides a connection to Clipsal C-Bus, while at the same time providing a system clock and network burden. The interface card also enables optical isolation between C-Bus and the controller for added safety.

***5350UCM***

## TECHNICAL INFORMATION

| Catalogue Number | 5350CB | 5350/XXXUT | 5350UCM |
|---|---|---|---|
| PC Programming | **No** | **No** | **Yes** |
| Clipsal PremiseGateway™ Interface | **No** | **No** | **Yes** |
| IR Learn/Download Facility | **No** | **No** | **Yes** |
| C-Bus Interface | **Yes** | **No** | **No** |
| EZinstall Interface | **No** | **Yes** | **No** |
| EZinstall Control | **0** | **40 devices, 40 scenes** | **0** |
| Number of Interfaces | **1** | **1** | **8** |
| Connection to Clipsal MinderPRO | **12V, COM, KA, KB (RS485)** | | |
| Supply Current | **50mA @ 12VDC** | | |
| C-Bus Supply Current | **22mA @ 36VDC** | **0** | **0** |
| C-Bus Group Addresses | **255 maximum** | **0** | **0** |
| Dimensions | **108mm x 88mm** | | |
| Operating Temperature Range | **0˚C to 40˚C** | | |
| Operating Humidity Range | **35 - 85% RH** | | |

## PRODUCT FEATURES

- Provides 2 way serial (RS232) communications between controller and third party systems.
- Connects to Clipsal C-Bus control system.
- Provides connection between Controller and PC for programming.
- Provides connection between Controller and Clipsal PremiseGateway™ for Internet connection.
- Features an IR learn and download facility to Controller memory.
- Controller supports up to 8 serial cards.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5350CB** | Interface Module, Serial to C-Bus |
| **5350UCM** | Interface Module, Serial, Universal |
| **5350/434UT** | Serial to EZinstall Interface, 434MHz |
| **5350/315UT** | Serial to EZinstall Interface, 315MHz |

# Current Transformers

A Current Transformer detects the AC current flow within the mains cable supplying an appliance and is used to determine if that appliance is on or off. The current transformer is used in conjunction with a current sensor module located on the input terminals of the controller, for a current reading. When no current is flowing the controller reads a normally open state. The current transformer is only suitable for AC current, and has minimum threshold of 100mA.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5351CT** | Current Transformer, Single |
| **5352CTM** | Current Transformer Interface, Dual |

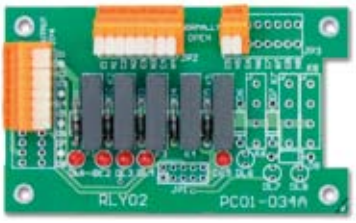
***5351CT***

***5352CTM***

# Reed Relay Modules

Reed Relay Modules are available with either 4 or 8 normally open voltage free contacts. Each reed relay requires 12mA to operate and may be controlled from any output channel of the Clipsal MinderPRO controller or expansion modules. The reed relays are designed for low voltage switching operations, suitable for load currents up to 24VAC/DC @ 500mA.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5354RVF** | Module, Reed Relay, 4 NO VF Relays |
| **5358RVF** | Module, Reed Relay, 8 NO VF Relays |




***5354RVF***

# Infrared Module

The Infrared Transmitter module is connected to any of the outputs on the Clipsal MinderPRO controller, including any of the expansion modules. The module allows transmission of the IR codes from the controller, to control AV and air-conditioning equipment. The Infrared Transmitter module has an 8m line of sight operation.

***5350IRM***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5350IRM** | Module, Infrared LED |

# Commissioning Tool

The Zone Test Switch consists of two momentary switches that are plugged into the 3-pin input terminals of the Clipsal MinderPRO controller. Each switch may be configured via shunts as normally open or normally closed. This makes the module very useful for testing and troubleshooting.

***5350ZTS***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5350ZTS** | Zone Test Switch |

# Power Supply

The power supply consists of an iron core transformer, with an input of 230VAC and output of 16VAC @ 3A.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5350PS16/3** | Power Transformer, 16VAC @ 3A |

***5350PS16/3***

# Enclosure

Custom enclosure designed for the 5388CU/2 or 5388SE/2 printed circuit board assemblies.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5300EN/2** | Mechanical Enclosure |

***5300EN/2***

# Home Safe Security System

The new redesigned Clipsal HomeSafe Alarm Panel is an 8-zone security system which can be expanded to 24-zones, with the addition of expansion cards. The security system features an on- board dialler, real-time clock function, battery backup and dedicated siren and strobe outputs. In addition, the panel also features a Weigand reader port and supports access control functions.

The on-board dialler supports monitoring back to a central base station. The Security panel features a dial-in facility, which permits remote arming, disarming or control of four auxiliary outputs from a DTMF handphone.

With the addition of the RF SIM card the security panel may be integrated with wireless motion and reed sensors. This way, the security panel can support an additional 8 wireless zones and 16 radio devices.

Powered from the mains supply, with a battery backup, the security panel features battery test and charging circuitry, and reports battery condition to the keypad. The panel is constructed from heavy duty, impact resistant polycarbonate, for strength and rigidity and the alarm panel cover is fitted with a 24 hour monitored tamper switch.

The base panel is supplied inclusive of a 24-zone LCD keypad. The keypad is also used to program and commission the panel at the time of installation, and change the user passwords thereafter. For more complex programming, the alarm panel is supplied with the Configuration Software.

***E5400***

## TECHNICAL INFORMATION

| Catalogue Number | **E5400** |
|---|---|
| Inputs | **8 programmable zones, protected loop, expandable to 24-zones** |
| Auxiliary Outputs | **4, programmable** |
| Real Time Clock | **On-board, programmable minutes, hours, day, month, year and day of week** |
| Keypads | **Up to 3 remote keypads** |
| Reader Input | **Supports up to 3 Weigand compatible readers** |
| Access Cards | **55 access codes/users** |
| Arm/Disarm | **Keypad, access card or DTMF phone** |
| User Codes | **56** |
| Battery Test | **Dynamic Test** |
| Resettable Fuses | **Yes** |
| Internal Siren | **Supports up to 3 x 5430 sirens** |
| Strobe | **Supports up to 2 x 5440WS strobes** |
| External Horn | **Supports up to 3 x 5430HS horn speakers** |
| Panic Feature | **Yes** |
| Tamper | **Yes (Box and siren cover)** |
| Area Partitioning | **Yes** |
| Remote Access | **Secure DTMF, remote arming and disarming and control of auxiliary outputs** |
| Central Monitoring | **Supports Contact ID protocols** |
| Dimensions | **235mm(W) x 300mm(H) x 90mm(D)** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |

## PRODUCT FEATURES

- 8 zone alarm panel, expandable to 24 zones.
- Dedicated siren and strobe outputs.
- Dial-in facility for remote arming & disarming.
- Supports RF sensors and transmitters with the addition of RF SIM modules.
- Supports Contact ID protocols.
- Supports 26-bit, Weigand compatible readers.
- Supplied with LCD keypad.
- A-Tick, CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5400** | Security Panel, 8 Zone, LCD Keypad |
| **5400S/2** | Programming Software for Alarm Panel |

# Home Safe Security System
## C-Bus Enabled

The Clipsal Home Safe Alarm Panel is a 16-zone security system which features a C-Bus interface. The security system features an on-board dialler, real-time clock function, battery backup and dedicated siren and strobe outputs. In addition, the panel also features a Weigand reader port and supports access control functions.

The Home Safe panel can be used to map 16 security events to 16 C-Bus commands. In addition, the panel can be armed from C-Bus by sending an ON command on a specified group address. The panel may also be programmed to send up to 16 C-Bus control messages when different events occur on the panel. The panel's security dialler can also report a C-Bus connection failure.

The on-board dialler supports monitoring back to a central base station. The security panel features a dial-in facility, which permits remote arming, disarming or control of four auxiliary outputs from a DTMF handphone.

With the addition of an RF SIM card, the security panel may be integrated with wireless motion and reed sensors. This way, the security panel can support an additional 8 wireless zones and 16 radio devices.

Powered from the mains supply, with a battery backup, the security panel features battery test and charging circuitry, and reports battery condition to the keypad. The panel is constructed from heavy duty, impact resistant polycarbonate, for strength and rigidity and the alarm panel cover is fitted with a 24 hour monitored tamper switch.

The base panel is supplied inclusive of a 24-zone LCD keypad and battery backup. The keypad is also used to program and commission the panel at the time of installation, and change the user passwords thereafter. For more complex programming, the alarm panel is supplied with the Configuration Software.

***E54000/16CB***

### PRODUCT FEATURES

- 16 zone alarm panel.
- C-Bus interface supports security and trigger applications.
- Dedicated siren and strobe outputs.
- Dial-in facility for remote arming & disarming.
- Supports RF sensors and transmitters with the addition of RF SIM modules.
- Supports Contact ID protocols.
- Supports 26-bit, Weigand compatible readers.
- Supplied with LCD keypad.
- A-Tick, CE and C-Tick compliant.

### TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **E5400/16CB** |
| Inputs | **16 programmable zones, protected loop** |
| Auxiliary Outputs | **4, programmable** |
| Real Time Clock | **On-board, programmable minutes, hours, day, month, year and day of week** |
| Keypads | **Up to 3 remote keypads** |
| Reader Input | **Supports up to 3 Weigand compatible readers** |
| Access Cards | **55 access codes/users** |
| Arm/Disarm | **Keypad, access card or DTMF phone** |
| User Codes | **56** |
| Battery Test | **Dynamic Test** |
| Resettable Fuses | **Yes** |
| Internal Siren | **Supports up to 3 x 5430 sirens** |
| Strobe | **Supports up to 2 x 5440WS strobes** |
| External Horn | **Supports up to 3 x 5430HS horn speakers** |
| Panic Feature | **Yes** |
| Tamper | **Yes (Box and siren cover)** |
| Area Partitioning | **Yes** |
| Remote Access | **Secure DTMF, remote arming and disarming and control of auxiliary outputs** |
| Central Monitoring | **Supports Contact ID protocols** |
| Dimensions | **235mm(W) x 300mm(H) x 90mm(D)** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **E5400/16CB** | Security Panel, 16 Zone, LCD Keypad, C-Bus Enabled |
| **5400S/2** | Programming Software for Alarm Panel |

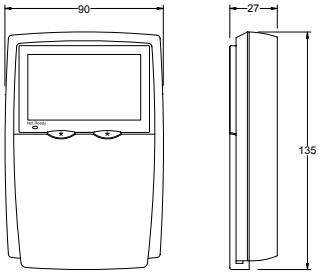
# Home Safe Keypad

The LCD keypad is an attractive user interface to the Home Safe panel used to arm or disarm the alarm panel and to initiate regular system checks, including battery and alarm tests. The keypad features an LCD display and backlit keys for night use. It also comes with an iconic display that provides a concise report of operational status, such as zones, alarm, battery life and mains power.

***5412KP***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5412KP** |
| Display | **LCD, Iconic, Backlit** |
| Auxiliary Outputs | **4, programmable** |
| Status Indicators | **(1) Not Ready** |
| Configuration | **4-wire, maximum of 3 keypads may be fitted** |
| Panic | **Two button operation** |
| Dimensions | **90mm(W) x 135mm(H) x 27mm(D)** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **10 - 95% RH** |




***5412KP illustrated***

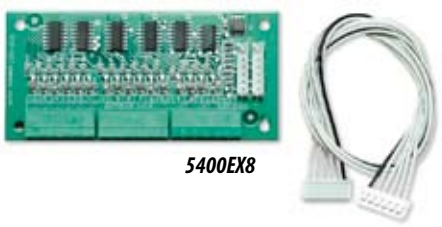
| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5412KP** | Keypad, 8 Zone, LCD |

# Home Safe Expansion Modules

Relay Module controlled by 4 auxiliary outputs (oepn collector) on the Home Safe panel.

The Expansion Modules allow the Home Safe Panel to connect up to 4 external card readers.

***5400/4R***



***5400EX8***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5400/4R** | Relay Module, 4 Channel |
| **5400EX8** | Output Expander Module, 8 Auxiliary Outputs |

# Access Control Equipment

The Home Safe Panel supports up to 4 Weigand card readers on a common bus connection.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5400ARC** | Reader, Weigand Compatible |
| **5400RWC** | Proximity Card, 125kHz, EmProx |

***5400ARC***

***5400RWC***

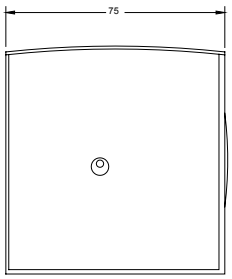
# Wireless Radio Equipment

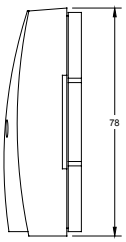
**Wireless Radio Frequency Receivers**
The wireless interface operates at a nominal frequency of 303.875MHz and is designed to complement any Clipsal wireless device such as motion sensors, reed switches and wireless pendants.

The wireless receiver supports 8 wireless zones and 16 radio devices. The wireless interface may be used to arm and disarm the panel using a radio device.

The radio wireless receiver is designed to fit close to the alarm panel and connects to the alarm panel using a 4-wire connector. The wireless receiver measures 75mm x 78mm x 20mm.

**Standalone Wireless Receiver**
The stand alone wireless receiver is ideally suited for applications that require a remotely switched relay output. The standalone wireless receiver comes complete with separate arm/disarmed dry contact relay which can be pulsed or latched to suit your application. The wireless receiver can respond to 4 radio keys or 4 alarm transmitting devices.




***5400RF illustrated***

***5400RF***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5400RF** | RF SIM to Suit Security Panel |
| **5400WR** | Standalone Wireless Receiver |

# Wireless Buttonpads

Clipsal offers a limited range of wireless pendants which is used in conjunction with the 5400RF and RF SIM device.

The wireless pendants may be used to arm and disarm the alarm panel or as a panic input. Keys can be programmed to sound an alarm or initiate a call to a monitoring station for immediatel assistance during an emergency.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5401BP** | 1 Button Wireless Pendant |
| **5403BP** | 3 Button Wireless Pendant |
| **5404BP** | 4 Button Wireless Pendant with Key FOB |

***5403BP***

# Reed Switches

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5460** | Reed Switch, Surface |
| **5460FS** | Reed Switch Flush, Round |
| **5460FD** | Reed Switch Flush, Round, Heavy Duty |
| **5460HD** | Roller Shutter Reed Switch |
| **5460MRF** | Reed Switch, Mini, RF |
| **5460RF** | Reed Switch, Multipurpose, RF |

***5460***

# Tamper Switches

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5460TSNC** | Tamper Switch, Normally Closed |
| **5460TSNO** | Tamper Switch, Normally Open |

***5460TSNC***

# Battery

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5460/12/7B** | Battery, 12VDC, 7AHr |

# Warning Devices

Visual and audible warning devices and deterrents play a very important part of any security systems. The Clipsal range includes screamers, waterproof strobes and sirens for indoor and outdoor use. External covers are constructed from rugged UV stabilized polycarbonate, which will never rust or corrode.

**5440WS** Weatherproof strobe, blue provides a high intensity, visible strobe light on alarm condition. Long life and reliable operation.

**5440MB** Mounting base for 5440WS strobe light, manufactured from ABS material.

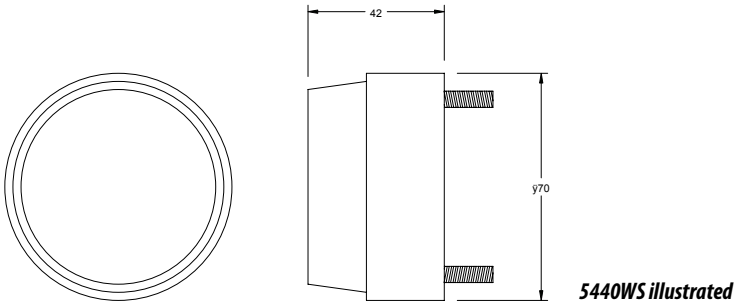
**5430/5430E** Internal screamers, designed for a piercing sound output and simple installation.

**5450SC** This siren cover is designed from UV stabilised plastic and will not rust. the 5450SC is used with the horn speaker and strobe, and a tamper switch may be fitted to the base, for additional security.

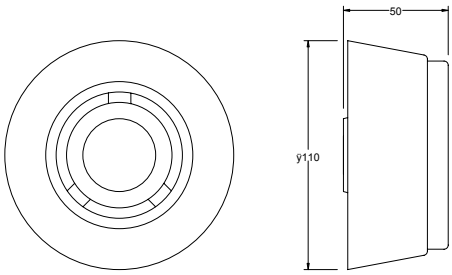
**5430HS** Designed for external applications, this horn speaker is designed to fit into a siren cover and provides an ear piercing 110dB of sound pressure.

***5440WS***

***5430***




***5440WS illustrated***




***5430 illustrated***

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5440WS** | Strobe, Waterproof, Blue |
| **5440MB** | Mounting Base to Suit Strobe |
| **5450SC** | Siren Cover, Plastic |
| **5430HS** | Horn Speaker, 8 Ohm |
| **5430** | Horn Speaker, Internal, Standard |
| **5430E** | Horn Speaker, Internal, Electronic |

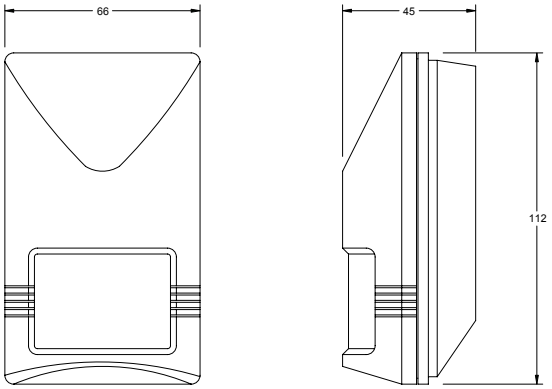
# 90° Motion Sensors

All Clipsal motion sensors feature the latest technology for supreme reliability, highest level of performance, and minimisation of false triggering. The motion sensors feature multi-segment Frensal lenses for optimum detection and an LED that illuminates when movement is detected.

***5420/90F***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5420/90F** |
| Operating Voltage | **9VDC, long life lithium battery** |
| Pulse Count | **Selectable 1-2 or 3-4 pulses** |
| Field of View | **90˚** |
| Mounting Height | **1.1m to 3.1m** |
| Detector | **Dual element pyroelectric** |
| Relay Output | **Normally closed (fail safe), voltage free, (0.5A/24V)** |
| Range | **12m x 12m @ 90˚C** |
| Low Down Creep Zone | **Yes** |
| Operating Temperature Range | **0˚C to 45˚C** |
| Operating Humidity Range | **35 - 85% RH** |




## PRODUCT FEATURES

- Mounting height, 1.1m to 1.3m.
- Multi-segment Frensal lenses.
- Dual element pyroelectric detector (IR).
- Alarm period, 5 seconds.
- Warmup period, 20 seconds.
- Tamper on unit.
- CE and C-Tick compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5420/90F** | Sensor, IR, 90˚, RF |

# 110° Motion Sensors

Introducing the Clipsal range of passive infrared motion sensors, these are cost effective detectors blended with reliability and stylish appearance. These motion sensors are specially designed for today's integrated security systems and security specialists.

The sensors feature an accurate and stable detection pattern and high-sensitivity detection is maintained throughout its entire operating temperature range and continues to operate reliably in low contrast environments.

For superior detection and to minimise dead zones, the detector features an optical arrangement that creates multiple detection zones, including a near field, 'look down' zone for superior vertical sensitivity.

The Pets Immune units featured patented technology to filter the effects of small animals in the detection zones, greatly reducing false alarms. These pet immune detectors are immune to the detection of small domestic pets of up to 18kg and 60cm in height.

These units have been designed to operate over a wide temperature range, and feature RFI and EMI protection to minimise false alarming, due to electrical interference. In addition, the unit features a sealed optics chamber, which prevents drafts and insects entering the unit and onto the pyroelectric detector which can create false alarms.

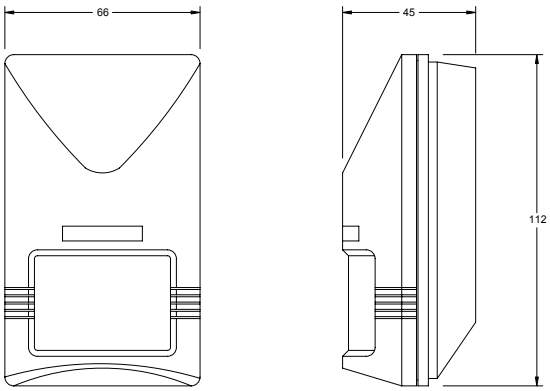
*5420/110/12RK*

## TECHNICAL INFORMATION

| Catalogue Number | 5420/110/12RP | 5420/110/15RK |
|---|---|---|
| Infrared Sensor | Dual element | |
| Power Supply | 9-16VDC, 12VDC typical | |
| Current Drain 1 | 5mA@12VDC | |
| Alarm Output | NC/NO, 30VDC, 0.2A max. | |
| Alarm Period | 1.5 - 2.5 seconds | |
| Field of View | 110° | |
| Detection Range | 12m x 12m @ 25°C | 15m x 15m @ 25°C |
| Pulse Count | 2 or 3 selectable | |
| Pet Immunity | Up to 18kgs, 60cm height | N/A |
| Tamper Switch | NC, open cover activates | |
| RFI Immunity | 20V/m from 10 - 1,000MHz | |
| Minimum Detectable Speed | 0.3 - 1.5m/sec | |
| Mounting Height | 1.8m - 3.6m | |
| Dimensions | 112mm x 66mm x 44mm | |
| Operating Temperature Range | -20°C to 60°C | |
| Operating Humidity Range | Below 95% RH | |

## PRODUCT FEATURES

- Dual element infrared sensor.
- Superior RFI and EMI protection.
- NC/NO selectable alarm output.
- Sealed optics chamber.
- Selectable pulse count.
- Noise reduction circuitry.
- Vertical range adjustment.
- Look down detection capability.
- Complies with the European Community Countries and Australian/New Zealand standards for electromagnetic compatibility and electrical safety.




| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5420/110/15RK** | Sensor, PIR, 110°, 15m |
| **5420/110/12RP** | Sensor, PIR, 110°, 12m, Pet Immune |

# 110° Motion Sensors, Dual Technology

Introducing the Clipsal range of dual technology motion sensors, these are cost effective detectors blended with reliability and stylish appearance. These motion sensors feature a combination of passive infrared and microwave sensors.

The alarm signal is generated only when both sensors detect intrusion at the same time. Therefore, the detection reliability is greater than a single technology detector.

The sensors feature an accurate and stable detection pattern and the sensitivity of the detector is maintained over its entire operating temperature range and continues to operate reliably in low contrast environments.

The combination of the optics and the microwave array create numerous detection zones, including a 'look down' feature, for superior detection capability and minimisation of dead zones.

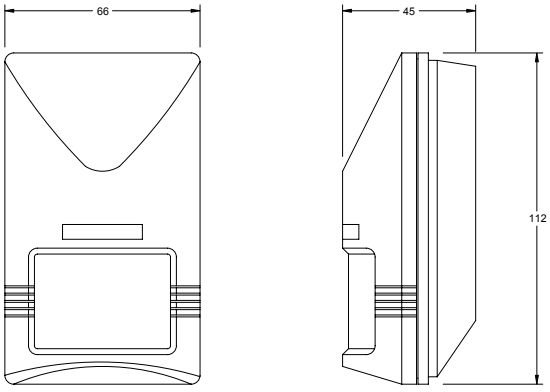
The Pet Immune units feature patented technology to filter the effects of small animals in the detection zones, greatly reducing false alarms. These pet immune detectors are immune to the detection of small domestic pets of up to 18kg and 60cm in height.

These units have been designed to operate overa wide temperature range, and feature RFI and EMI protection to minimise false alarming, due to electrical interference.

***5420/110/12RMK***

## TECHNICAL INFORMATION

| Catalogue Number | **5420/110/12RMP** | **5420/110/15RMK** |
|---|---|---|
| Infrared Sensor | **Dual element, high-sensitivity, low noise.** | |
| Power Supply | **9-16VDC, 12VDC typical** | |
| Current Drain | **30mA@12VDC** | |
| Alarm Output | **NC/NO, 30VDC, 0.2A max.** | |
| Alarm Period | **1.5 - 2.5 seconds** | |
| Field of View | **110°** | |
| Detection Range | **12m x 12m @ 25°C** | **15m x 15m @ 25°C** |
| Pulse Count | **2 or 3 selectable** | |
| Pet Immunity | **Up to 18kgs, 60cm height** | **N/A** |
| Tamper Switch | **NC, open cover activates** | |
| RFI Immunity | **20V/m from 10 - 1,000MHz** | |
| Mounting Height | **2.2m - 2.3m** | **2.0m - 3.6m** |
| Dimensions | **112mm x 66mm x 44mm** | |
| Operating Temperature Range | **-20°C to 50°C** | |
| Operating Humidity Range | **Below 95% RH** | |




## PRODUCT FEATURES

- Dual element infrared sensor.
- Advanced DRO microwave sensor.
- Adjustable microwave detection range.
- Superior RFI and EMI protection.
- NC/NO selectable alarm output.
- Sealed optics chamber.
- Selectable pulse count.
- Noise reduction circuitry.
- Vertical range adjustment.
- Look down detection capability.
- Fluorescent light interference filter circuit.
- Complies with the European Community Countries and Australian/New Zealand standards for electromagnetic compatibility and electrical safety.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5420/110/15RMK** | Sensor, PIR + MW, 110°, 15m |
| **5420/110/12RMK** | Sensor, PIR + MW, 110°, 12m, Pet Immune |

# 360° Motion Sensors

Introducing the Clipsal range of passive infrared motion sensors, these are cost effective detectors blended with reliability and stylish appearance. These motion sensors are specially designed for today's integrated security systems and security specialists.

The sensors feature a Frensel lens and an omni directional infrared sensor, that provides a large coverage area and unequalled catch performance to motion from any direction.

For superior detection and to minimise dead zones, the detector features an optical arrangement that creates multiple detection zones, including a near field, 'look down' zone for superior vertical sensitivity.

In addition, the unit features a sealed optics chamber, which prevents drafts and insects entering the unit and onto the pyroelectric detector which can create false alarms.

These units have been designed to operate over a wide temperature range, and feature RFI and EMI protection to minimise false alarming due to electrical interference.

***5420/360***

## TECHNICAL INFORMATION

| Catalogue Number | **5420/360/28RA** | **5420/360/28RB** |
|---|---|---|
| Infrared Sensor | **Omni-directional, dual element** | |
| Power Supply | **9-16VDC, 12VDC typical** | |
| Current Drain | **15mA@12VDC** | **14mA@12VDC** |
| Alarm Output | **NC/NO, 30VDC, 0.2A max.** | |
| Alarm Period | **2 - 4 seconds** | |
| Field of View | **360˚** | |
| Detection Range | **Mounting ht x 3.3 @ 25˚C** | **Mounting ht x 2.5 @ 25˚C** |
| Pulse Count | **2, 3 or 4 selectable** | **2 or 3 selectable** |
| Pet Immunity | **Up to 18kgs, 60cm height** | **N/A** |
| Tamper Switch | **NC, open cover activates** | |
| RFI Immunity | **25V/m from 10 - 1,000MHz** | |
| Mounting Height | **2.4m - 3.6m** | **2.4m - 4.2m** |
| Dimensions | **100mm x 100mm x 46mm** | **110mm dia. x 44mm** |
| Operating Temperature Range | **-20˚C to 50˚C** | |
| Operating Humidity Range | **Below 95% RH** | |

## PRODUCT FEATURES

- Omni-directional, dual element infrared sensor.
- Superior RFI and EMI protection.
- NC/NO selectable alarm output.
- Sealed optics chamber.
- Intelligent pulse count selection.
- Look down detection capability.
- Walk test LED.
- Complies with the European Community Countries and Australian/New Zealand standards for electromagnetic compatibility and electrical safety.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5420/360** | Sensor, IR, 360˚ Circular |
| **5420/360/28RA** | Sensor, PIR, 360˚ Pyramid |
| **5420/360/28RB** | Sensor, PIR, 360˚ Circular |

# Photoelectric Beam Detectors

Introducing the Clipsal range of photoelectric beam detectors, these are cost effective detector sets, blended with reliability and stylish appearance. These beam detectors are specially designed for today's integrated security systems and security specialists.

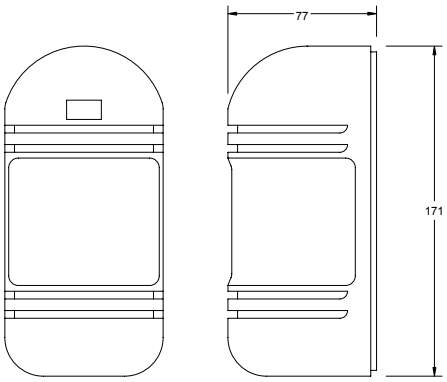
The dual photoelectric beam detectors have been developed for perimeter protection of various distances. The compact and weatherproof housing design makes it perfect for outdoor and indoor installations. 200 times of detecting allowance maintains the unit stable even with 99.5% of the beam blocked.

These units have been designed to operate overa wide temperature range, and feature RFI and EMI protection to minimise false alarming, due to electrical interference.

***5420/30PB***

## TECHNICAL INFORMATION

| Catalogue Number | 5420/30PB | 5420/60PB | 5420/100PB |
|---|---|---|---|
| Detection Range | **5 - 30m** | **30 - 60m** | **60 - 100m** |
| Maximum Distance | **430m** | **840m** | **1,400m** |
| Current Drain | **35mA** | **40mA** | **60mA** |
| Power Supply | **12 - 28VDC** | | |
| Beam Source | **2 x infrared LEDs** | | |
| Detection Method | **Dual beam simultaneous cut-off** | | |
| Response Time | **50 - 700m/sec.** | | |
| Alarm Output | **Form-C, 30VAC/DC, 0.5A max.** | | |
| Tamper Protection | **NC, open cover activates** | | |
| Optical Axis Adjustment | **180˚ horizontal, 20˚ vertical** | | |
| IP Rating | **IP54** | | |
| Dimensions | **171mm x 82mm x 77mm** | | |
| Operating Temperature Range | **-20˚C to 60˚C** | | |

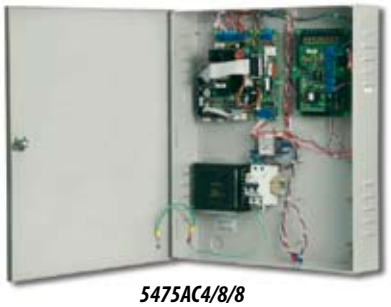



## PRODUCT FEATURES

- Dual element infrared sensor.
- High-level RFI and EMI immunity.
- Automatic gain control circuitry.
- Lightning surge protection.
- Tamper protection.
- Weatherproof housing design.
- Adjustable blocking time.
- Multiple receiving indications.
- Anti-fog and anti-dew design.
- Horizontal and vertical optical axis adjustments.
- Complies with the European Community Countries and Australian/New Zealand standards for electromagnetic compatibility and electrical safety.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5420/30PB** | Photoelectric Beam Detector 30m |
| **5420/60PB** | Photoelectric Beam Detector 60m |
| **5420/100PB** | Photoelectric Beam Detector 100m |

# Access Control Panel



***5475AC4/8/8***

The CentralAXS is an access control product that uses patented web technologies. This revolutionary invention changes the way a typical access control system is installed and used. The conventional way of implementing a typical system has always been tedious and complex because the installation of application programs to remotely control and monitor the system. Furthermore, application programs that are designed for a specific operating system cannot run on another operating system. CentralAXS is a new method of providing cross platform remote controlling and monitoring, where the system is truly easy to implement is and not dependant on any specific operating system.

CentralAXS is a new generation access control panel that uniquely combines the features of a web server and security controls functionalities into one complete unit. In addition the CentralAXS features an interface to the Clipsal C-Bus control system providing integrated access control, security, video and lighting management in one product.

The CPU of the panel uses a 32-bit microprocessor, running at 233MHz speed. Computers with different operating system and hardware platform that run standard web browser program such as Internet Explorer or Netscape Navigator, can now be used to access, monitor and control any CentralAXS panel which in turn controls doors, cameras, alarms, C-Bus etc.

Employing the latest web technologies, CentralAXS has an in built web server that provides access control functionality with real time remote video surveillance and event driven recording. Users can view real time or recorded images via the web pages of the panel.

Since the CentralAXS is based on web technologies the panel supports email and SMS messaging. Messages based on selected events, devices, cardholders as well as time attendance and lateness reporting is available for up to 8 programmable email recipients.

The C-Bus interface is available through a serial connection between the CentralAXS panel and a C-Bus PC Interface. The panel supports device control (on/off and ramp to level) as well as the creation of scenes. With the C-Bus interface it is possible to schedule lighting activity with access control or alarm conditions, to automatically switch lighting on to record images via the video cameras for superior image capture.

Language support is offered in either English or Simplified Chinese text. The software kit is available separately and consists of 64MB or 256MB compact flash module, smart card with software license, CD ROM (utility program and manuals) and quick installation guide.

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5475AC4/8/8** |
| Input Power Supply | **110/230VAC @ 50/60Hz** |
| Output Power Supply | **15VDC @ 2.4A** |
| Battery Input (optional) | **12VDC, 7AHr** |
| Battery Charging | **Online Charging** |
| Installed Modules | **1 x 5475CR4/8/8 (4 Reader Board with 8 Inputs/8 Outputs)**<br>**1 x 5475CV (Converter Board)** |
| Dimensions | **525mm(H) x 455mm(W) x 90mm(D)** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **0 - 95%, non-condensing** |

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# Access Control Panel *cont'd from previous page*

### SYSTEM PARAMETERS
- 255 access groups.
- 256 weekly schedules.
- 32 holidays and 32 special holidays.
- Full anti-passback (APB) capabilities.
- Global APB for 16 Weigand compatible readers.
- Up to 32 input monitoring points.
- Up to 32 relay outputs.
- 5,120 buffered transaction history.
- Built-in reporting functions (transactions & system logs).

### CARD ACCESS PARAMETERS
- 1,024 card capacity.
- 16 programmable Weigand formats.
- Card function type: normal, time attendance, arm/disarm.
- Card only, PIN only or Card + PIN operation.
- Selectable PIN per card (4-7 digits).
- Card batch add/delete feature.
- 2 user definable fields.

### ACCESS CARDS
- Available as ISO or standard credit card size.
- Em Prox technology.
- Available as FOB type.
- 125KHz response frequency.

### DOOR PARAMETERS
- Auto lock/unlock (schedule controlled).
- Lock/unlock of doors by card reader control.
- Door strike control, 1-255 secs.
- Door left open alarm, 1-255 secs.

### ALARM AND I/O STATUS PARAMETERS
- Automatic incoming power failure monitoring.
- Real time alarm transaction history.
- Instant and delay alarm monitoring for any input.
- Programmable alarm point description.
- Programmable arm/disarm of alarm zone(s).
- Programmable arm/disarm status LEDs.
- Programmable output control.
- Programmable input-output linking.
- Door held open/forced open alarm reporting.
- Duress alarm (from keyboard readers).
- Tamper alarm (enclosure opening).
- Common alarm output.

### EMAIL/SMS PARAMETERS
- Email based on SMTP.
- Email based upon triggered conditions (based on selectable events, devices and/or cardholders).
- Time attendance transactions and lateness reporting.
- Hardware failure auto reporting.
- 8 programmable groups of email recipients with attached messages.

### VIDEO PARAMETERS
- Live video viewing (4 network cameras/4 CCTV cameras via a video server).
- Playback of alarm video .
- Event driven recording.

### C-BUS INTERFACE
- Supports a single C-Bus network.
- Supports all C-Bus Applications.
- Supports up to 255 Group Addresses across all C-Bus Applications.
- Up to 100 user definable scenes.
- Supports on, off and ramp to level messaging.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475AC4/8/8** | Access Control Panel with Power Supply Module |
| **5475ENPS** | Expansion Panel with Power Supply Module |
| **5475UK256** | Software Kit, 256MB, Compact Flash, UK English ( Video and C-Bus Intergration) |

# 4 Reader Module

The 4 reader module is used in conjunction with the CentralAXS panel to interface to the proximity readers. Each 4 reader module can support four separate readers, and all the associated hardware to control four independent doors.

Each of the CentralAXS control panels can support up to four, 4 reader modules making the system's maximum supported configuration of 16 readers. The basic CentralAXS panel is supplied with one 4 reader module installed and has provision for one additional module. Additional 4 reader modules would be housed in the expansion cabinet.

Each reader interface on the 4 reader module can supply up to 150mA@12VDC to power the reader. In addition, 8 outputs are available to energize the door strike or magnetic lock, each output is in the form of a Form-C relay, dry contact and rated at 30VDC@2A. The 4 reader modules also features 8 inputs for door contacts and request to exit inputs, which may be used to report door left open or forced door entry status.

***5475CR4/8/8***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5475CR4/8/8** |
| Power Supply | **15VDC (from CPU board or power supply unit)** |
| CPU Interface | **RS485** |
| Readers Supported | **4 Weigand compatible readers** |
| Inputs | **4 supervised 6.8kW door contacts and 4 supervised 6.8kW request to exit devices** |
| Outputs | **4 Form-C relay outputs, 30VDC @ 2A** |
| Dimensions | **178mm x 127mm x 18mm** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **0 - 95%, non-condensing** |

## PRODUCT FEATURES

- 4 Weigand compatible readers can be supported.
- 4 supervised Door Contacts.
- 4 supervised Request to Exit devices.
- 4 Form-C relay outputs, one for each door strike.
- Status indicators for presence of power and relay states.
- C-Tick and CE compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475CR4/8/8** | 4 Reader Module |

# Expansion Module

The 8 input/8 output module provides eight detection zones of end-of-line resistor type inputs and eight contact closure outputs. This module is intended for non-reader type applications where it is necessary to monitor as emergency exit doors or motion detectors. This module also provides eight Form-C type relay outputs, which can be used to control external equipment.

Each of the CentralAXS control panels can support up to four, 8 input/8 output modules making the system's maximum supported configuration of 32 inputs/32 outputs. The basic CentralAXS panel accommodates one 8 input/8 output module. Additional modules would be housed in the expansion cabinet.

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5475EX8/8** |
| Power Supply | **15VDC (from CPU board or power supply unit)** |
| CPU Interface | **RS485** |
| Inputs | **8 supervised inputs (6.8kΩ resistor)** |
| Outputs | **8 form-C relay outputs, 30VDC@2A** |
| Dimensions | **178mm x 127mm x 18mm** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **0 - 95%, non-condensing** |

***5475EX8/8***

## PRODUCT FEATURES

- 8 supervised inputs (6.8kΩ resistor).
- 8 Form-C relay outputs, rated at 30VDC@2A.
- Status indicators for presence of power and relay states.
- C-Tick and CE compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475EX8/8** | Expansion Module, 8 Inputs/8 Outputs |

# Converter Module

The RS485 converter board provides the communication link between the CPU card located on the main panel and the rest of the cards, mainly the 4 reader board and the 8 input/8 output board.

The basic CentralAXS control panel is supplied with one converter board. An additional converter board must be fitted to each expansion panel thereafter, to facilitate communications with the main CPU card.

Power is supplied to the converter card by a separate 2-wire connection from the power supply card located in the main panel.

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5475CV** |
| Power Supply | **15VDC (from CPU board or power supply unit)** |
| CPU Interface | **RS485** |
| Dimensions | **135mm x 127mm x 15mm** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **0 - 95%, non-condensing** |

***5475CV***

## PRODUCT FEATURES

- Provides serial (RS485) interface between CPU card and add on cards/expansion panels.
- C-Tick and CE compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475CV** | Converter Module |

# Proximity Card Reader, E-Series

This proximity card reader is modern, simple and aesthetically attractive in appearance. The enclosure is sealed from the environment and is designed for indoor and outdoor applications. The reader offers easy installation in any location.

The unit is constructed from polycarbonate material designed to withstand harsh environments and the unit is fully waterproof, its performance is highly reliable.

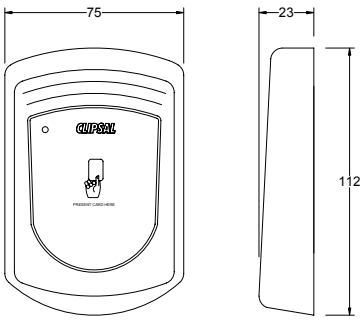
The proximity card reader is designed to interface with all CentralAXS's Wiegand protocol access products. Output data is Wiegand format (26-bits).

These proximity readers interface to the CentralAXS controller for multiple applications such as access control, time attendance, guard tour arming/disarming of intrusion alarms as well as interface to the C-Bus control system for lighting and air-conditioning control.

***5475PREE***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5475PREE** |
| Power Supply | **+8.5 to 16VDC (linear power supply)** |
| Power Consumption | **55mA @ 12VDC (typical)** |
| Transmit Frequency | **125kHz** |
| Excite Frequency | **125kHz** |
| Output Protocol | **Wiegand (26 bits)** |
| Card Reader Technology | **EmProx** |
| Read Range | **Up to 7cm (based on ISO card in noise free environment)** |
| Material ABS | **(UL94V-0)** |
| IP Rating | **IP66 (fully waterproof)** |
| Colour | **Pantone charcoal base** |
| Mounting Surface | **84mm mounting centre** |
| Dimensions | **112mm(H) x 75mm(W) x 23mm(D)** |
| Operating Temperature Range | **0˚C to 50˚C** |




## PRODUCT FEATURES

- High reliability, consistent read range characteristics and low power consumption in a single, easy-to-install package.
- Features bi-colour LED and audible tone for positive user feedback.
- Host control of the LED and beeper.
- Provides Wiegand protocol interface compatibility with all standard access control systems.
- Provides an interface to the C-Bus control system via the host controller.
- C-Tick and CE compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475PREE** | Proximity Reader, EmProx, E-Series |

# Proximity Card Reader, S-Series

This proximity card reader is modern, simple and aesthetically attractive in appearance. The enclosure is sealed from the environment and is designed for indoor and outdoor applications. The reader offers easy installation in any location.

The unit is constructed from polycarbonate material designed to withstand harsh environments and its performance is highly reliable.

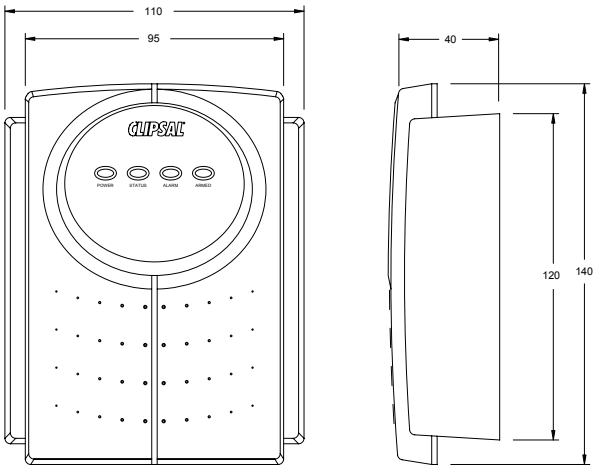
The proximity card reader is designed to interface with all CentralAXS's Wiegand protocol access products. Output data is Wiegand format (26-bits).

These proximity readers interface to the CentralAXS controller for multiple applications such as access control, time attendance, guard tour arming/disarming of intrusion alarms as well as interface to the C-Bus control system for lighting and air-conditioning control.

***5475PRES***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5475PRES** |
| Power Supply | **+8.5 to 16VDC (linear power supply)** |
| Power Consumption | **55mA @ 12VDC (typical)** |
| Transmit Frequency | **125kHz** |
| Excite Frequency | **125kHz** |
| Output Protocol | **Wiegand (26 bits)** |
| Card Reader Technology | **EmProx** |
| Read Range | **Up to 7cm (based on ISO card in noise free environment)** |
| Material | **ABS (UL94V-0)** |
| Colour | **Metallic silver cover and grey base** |
| Mounting Surface, mount uses | **4 x M4 screws** |
| Dimensions | **140mm(H) x 110mm(W) x 40mm(D)** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **0 - 90% non-condensing** |




## PRODUCT FEATURES

- High reliability, consistent read range characteristics and low power consumption in a single, easy to install package.
- Features multi LEDs and audible tone for positive user feedback.
- Status LEDs include; Power, Status, Alarm and Armed.
- Host control of the LED and beeper.
- Provides Wiegand protocol interface compatibility with all standard access control systems.
- Provides an interface to the C-Bus control system via the host controller.
- C-Tick and CE compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475PRES** | Proximity Reader, EmProx, S-Series |

# Proximity Card Reader & Keypad, S-Series

This proximity card reader is modern, simple and aesthetically attractive in appearance. The enclosure is sealed from the environment and is designed for indoor and outdoor applications. The reader offers easy installation in any location.

The unit is constructed from polycarbonate material designed to withstand harsh environments and its performance is highly reliable.

The proximity card reader is designed to interface with all CentralAXS's Wiegand protocol access products. Output data is Wiegand format (26-bits).

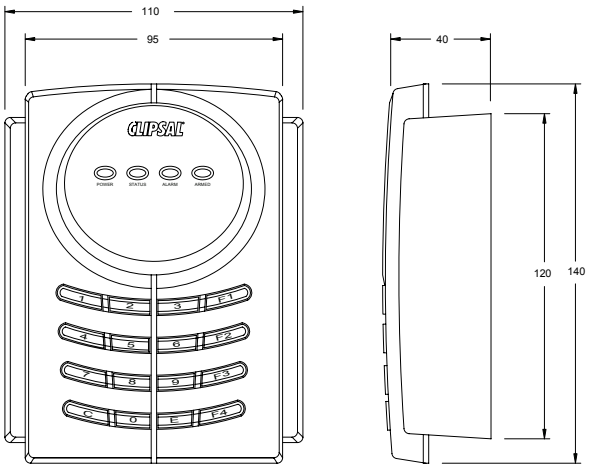
In addition to the Wiegand compatible proximity reader, the unit features a soft touch keypad for entry of user PIN codes. The keypad may be used to arm and disarm alarm sensors, or may be used to enter expectation codes.

These proximity readers interface to the CentralAXS controller for multiple applications such as access control, time attendance, guard tour arming/disarming of intrusion alarms as well as interface to the C-Bus control system for lighting and air-conditioning control.

***5475PRESK***

## TECHNICAL INFORMATION

| | |
|---|---|
| Catalogue Number | **5475PRESK** |
| Power Supply | **+8.5 to 16VDC (linear power supply)** |
| Power Consumption | **55mA @ 12VDC (typical)** |
| Transmit Frequency | **125kHz** |
| Excite Frequency | **125kHz** |
| Output Protocol | **Wiegand (26 bits)** |
| Card Reader Technology | **EmProx** |
| Read Range | **Up to 7cm (based on ISO card in noise free environment)** |
| Keypad | **16 soft touch keys** |
| Material | **ABS (UL94V-0)** |
| Colour | **Metallic silver cover and grey base** |
| Dimensions | **140mm(H) x 110mm(W) x 40mm(D)** |
| Mounting | **Surface, mount uses 4 x M4 screws** |
| Operating Temperature Range | **0˚C to 50˚C** |
| Operating Humidity Range | **0 - 90% non-condensing** |




## PRODUCT FEATURES

- High reliability, consistent read range characteristics and low power consumption in a single, easy to install package.
- Features multi LEDs and audible tone for positive user feedback.
- Status LEDs include; Power, Status, Alarm and Armed.
- Host control of the LED and beeper.
- Provides Wiegand protocol interface compatibility with all standard access control systems.
- Features 16 soft touch keys.
- Provides an interface to the C-Bus control system via the host controller.
- C-Tick and CE compliant.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475PRESK** | Proximity Reader, EmProx, Keypad, S-Series |

# Keycards

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475PCE** | Proximity Card, 125kHz, EmProx |
| **5475PCES** | Proximity Card, 125kHz, ISO, EmProx |

***5475PCE***

# Key FOB

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5475KFE** | Key FOB, 125kHz, EmProx |

***5475PCES***

***5475KFE***

# Technical Information

intelligent build
smart homes
lighting control solution
energy managemen
control systems
home automation

# C-Bus Wireless System Operation

The C-Bus Wireless product range incorporates a family of C-Bus Radio Frequency (RF) devices, including Wall Plates, Plug Adaptors, Remote Control and a Gateway to Category 5 Wired C-Bus units.

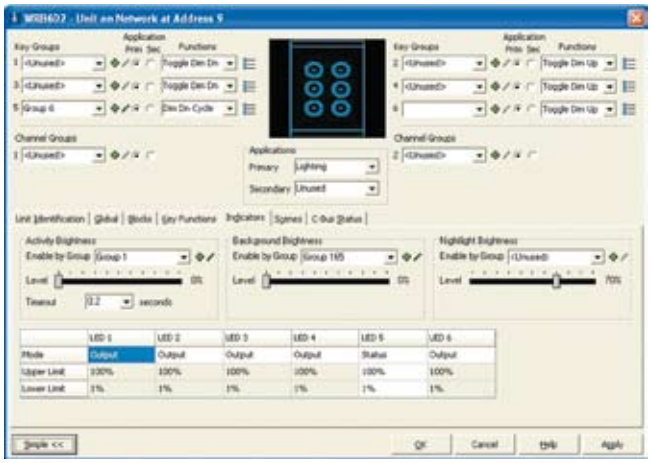
C-Bus Wireless Wall Plates are designed to easily replace standard, 240V wall switches. They incorporate patented Clipsal technology and are two wires devices requiring no Neutral (240VAC Active and Load connections only).

All C-Bus Wireless units incorporate Clipsal C-Bus' unique Learn Mode functions for programming devices. Wall Plates, Plug Adaptors and the Gateway unit can also be programmed via the C-Bus Toolkit software. Multiple C-Bus Wireless units can be linked into a common network using Learn Mode or the C-Bus Toolkit software.

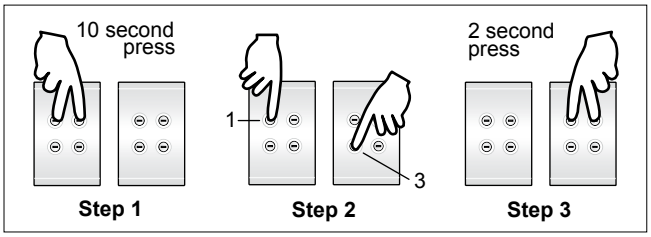
Associations can be created between buttons on multiple units, so that a button press on one unit will operate a button on another (and the connected lights or other electrical devices).

C-Bus Wireless units include scene capabilities, which allow the user to perform a series of actions across multiple outputs by pressing a single button. For example, on arrival home a home owner could use a scene to switch on lights in the hallway, kitchen and lounge, and also switch on a heater.

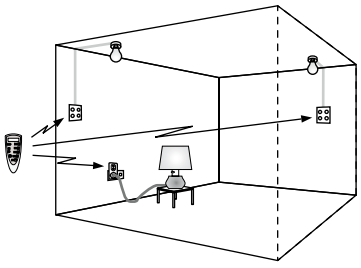
The diagrams below show two of the many possible basic C-Bus Wireless unit installations. Room A uses stand-alone units, which can be switched via the Wireless Remote Control. Room B uses networked units where buttons on one unit can operate other units or trigger scenes.



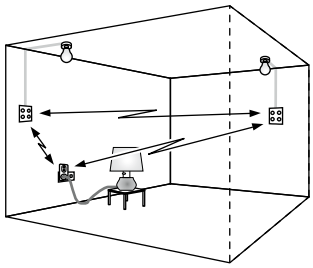
***Programming a C-Bus Wireless via C-Bus Toolkit Software***




***Grouping C-Bus Wireless Units via Learn Mode***



***Room A***
***Standalone C-Bus Wireless Units***



***Room B***
***Networked C-Bus Wireless Units***

# C-Bus Wireless System Operation

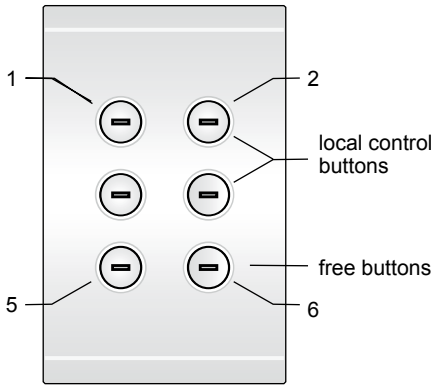
## Basic Operation

Buttons on a Wireless Wall Plate or Plug Adaptor are organised in pairs that control the output channels (local control buttons). Remaining pairs (free buttons) are used to control outputs on other units when multiple C-Bus Wireless units are configured as part of a network. For example, the figure below shows a 6 button, 2 channel ULTI Wireless Dimmer unit. Its buttons perform the following functions:

- Buttons 1 and 2 control the first channel. (A quick press on either button toggles the channel on or off. A long press on button 1 or 2 dims down or up respectively).
- Buttons 3 and 4 control the second channel.
- Buttons 5 and 6 are unused when the unit is used as a stand-alone unit. They may be used to control outputs on other units when part of a multi-unit network.

When a C-Bus Wireless Wall Plate or Plug Adaptor unit is first installed, it functions as a stand-alone unit. In this basic default mode, the unit functions as a dimmer or switch, depending on the model.

C-Bus Wireless Plug Adaptors have one output channel (a single, 240VAC socket) and two buttons. Wall plate units are available in one or two output channel versions, with two, four, six or eight buttons (eight button, NEO only). Each channel controls one or more lights or other electrical devices connected to its output.



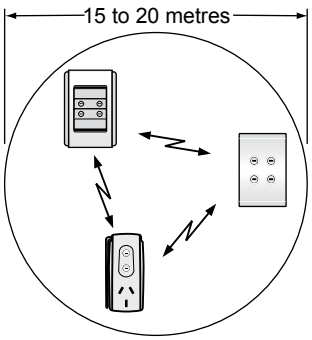

***Two output channels***

## C-Bus Wireless Networks

To experience the full capabilities of wireless operation, C-Bus Wireless units must be linked together to form a network.

To communicate with each other, units within the same network should be located within 15 to 20 meters of each other. This distance depends on building materials used.

Up to 30 units may be connected within the same C-Bus Wireless network.




## C-Bus Wireless Network Security

C-Bus Wireless units can optionally use 128-bit encrypted messages to communicate with each other. This results in a highly secure network.

## Nearby C-Bus Wireless Networks

It is possible to have several separate networks present alongside each other without interfering, as each separate C-Bus Wireless network has an automatically assigned, unique 'House Code'.

## C-Bus Wireless Modes of Operation

C-Bus Wireless units have five major modes of operation.

### Mode 1

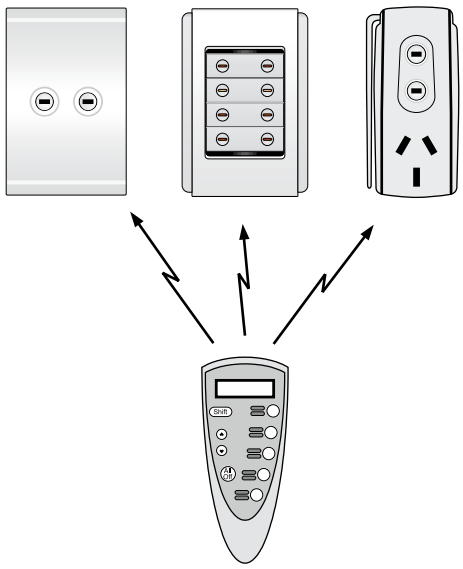
**Stand-Alone Mode**

In this mode, C-Bus Wireless Wall Plates and Plug Adaptors acts as stand-alone dimmers or switches and make no use of the inbuilt wireless capabilities. No setup is required for this mode, Plug Adaptors simply plug into the mains, and Wireless Wall Plates are installed by a licensed electrician in place of existing wall switches. The buttons on the units control the local dimming or switching channels of the unit only.

### Mode 2

**Simple Remote Controlled Mode**

In this mode, a C-Bus Wireless Wall Plate acts as a standalone dimmer or switch and a C-Bus Wireless Remote Control operates the Wall Plate from a distance. This mode is simple to set up and is suitable for small installations where networking is not needed. C-Bus Wireless Wall Plate or Plug Adaptor units are controlled using a C-Bus Wireless Remote: In this mode, the buttons on the Wireless Wall Plate control the local dimming or switching channels of the unit, and the Remote Control is linked to buttons on a Wall Plate using a Learn Mode operation. No PC is required.



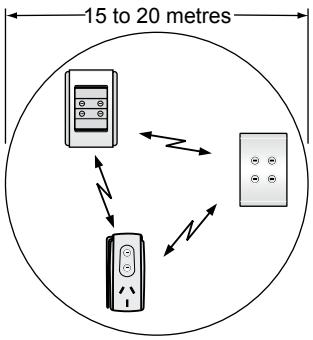
# C-Bus Wireless System Operation

## C-Bus Wireless Modes of Operation *(cont'd)*

### Mode 3

**Networked Mode**

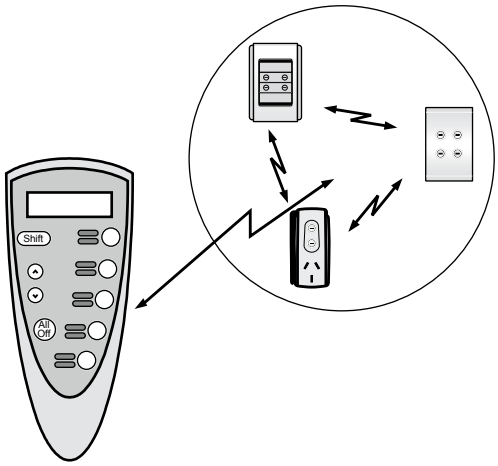
In this mode, a C-Bus Wireless Wall Plate acts as a dimmer or switch and multiple C-Bus Wireless units can be linked to each other with the C-Bus Wireless technology. This mode is simple to setup, and is suitable for more complex installations. In this mode, local control buttons control the dimming or switch channel of the unit, and may also control other C-Bus Wireless units. Free buttons can control the dimmer or switch channels of other units via a C-Bus Wireless network established using Learn Mode operations. The operation of buttons is set using Learn Mode operations or using the C-Bus Toolkit Software.




### Mode 4

**Networked with Remote**

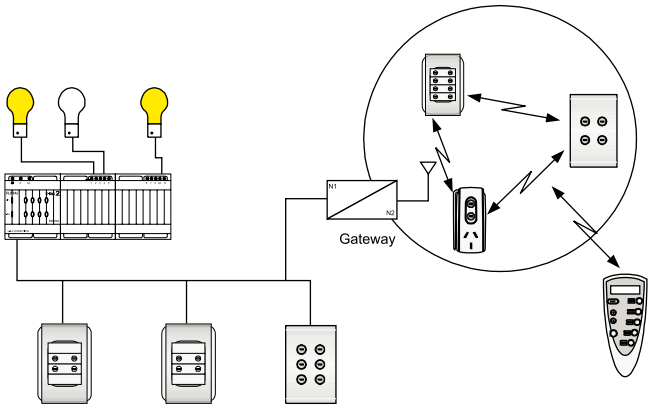
In this mode, a C-Bus Wireless Wall Plate acts as a dimmer or switch and multiple C-Bus Wireless units can be linked to each other with the C-Bus Wireless technology. Local control buttons control the dimming or switch channel of the unit, and may also control other C-Bus Wireless units. Free buttons can control the dimmer or switch channels of other units via a C-Bus Wireless network established using Learn Mode operations or C-Bus Toolkit software. Buttons on the Wireless Remote are linked to Wall Plate and Plug Adaptor buttons as desired.




### Mode 5

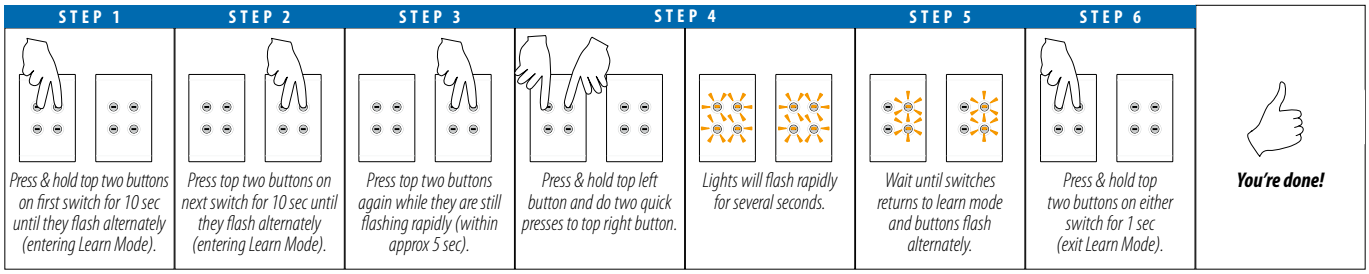
**Networked Mode in Combination with Category 5 Wired C-Bus Units**

The C-Bus Wireless Gateway is used to link a C-Bus Wireless network to a C-Bus Category 5 wired network. It is functionally equivalent to a C-Bus Network Bridge. Using the Gateway, C-Bus Wireless and Category 5 networks can communicate and interact with each other. Both Wireless and Category 5 networks use the same command structure, and are 100% compatible.



# C-Bus Wireless Quick Start Guide

## Creating Your Network *(getting your units to talk to each other)*

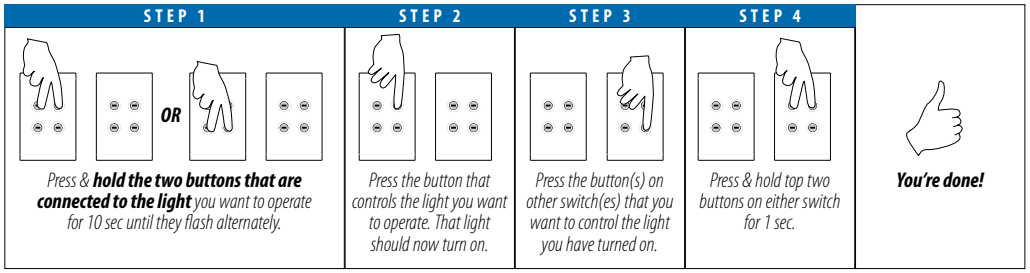

STEP 1
Press & hold top two buttons on first switch for 10 sec until they flash alternately (entering Learn Mode).
STEP 2
Press top two buttons on next switch for 10 sec until they flash alternately (entering Learn Mode).
STEP 3
Press top two buttons again while they are still flashing rapidly (within approx 5 sec).
STEP 4
Press & hold top left button and do two quick presses to top right button.
Lights will flash rapidly for several seconds.
STEP 5
Wait until switches returns to learn mode and buttons flash alternately.
STEP 6
Press & hold top two buttons on either switch for 1 sec (exit Learn Mode).
You're done!

**Quick Tips**

- When a switch is put into learn mode the buttons will flash rapidly for approx 5 sec - this is normal.
  It is best to wait for them to flash slowly before performing your next task unless specified (such as step 3 above).
- You can network more than one switch at a time - repeat steps 2 and 3 on following switches before performing steps 4 to 6
- Network a plug adaptor exactly the same way as a switch - the buttons are just vertical instead of horizontal.
- Once all of your switches are networked they will all automatically go into learn mode the next time it is entered on one of the switches.
- It is best to network all of your switches and plug adaptors before moving on to grouping buttons and creating scenes.

## Grouping Buttons *(getting a button on one or more switches to turn on a light on another switch)*

***IMPORTANT: If your switch controls two separate lights, you MUST enter learn mode using the two buttons that are connected to the light you wish to control.***


STEP 1
OR
Press & hold the two buttons that are connected to the light you want to operate for 10 sec until they flash alternately.
STEP 2
Press the button that controls the light you want to operate. That light should now turn on.
STEP 3
Press the button(s) on other switch(es) that you want to control the light you have turned on.
STEP 4
Press & hold top two buttons on either switch for 1 sec.
You're done!

**Quick Tips**

- You can turn on a light from several switches - repeat step 3 on other buttons you would like to operate the light before performing step 4.
- If the grouped buttons flash after performing step 3, it means you have held the button too long and it has become a timer.
  If this happens, simply press it twice. This will unnasign the button as a timer it, and reassign it as a group.
- If learn mode is entered on a switch whose lights have been used in a group, those buttons will become illuminated after a few seconds instead of flashing alternately.

# C-Bus Wireless Quick Start Guide

## Creating Scenes *(dimming and turning several lights on or off with the press of one button)*

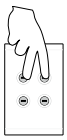
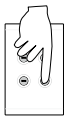
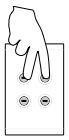
***IMPORTANT: Before you can create scenes you must:***

*Part 1: Create a Scene Button as per below*

*Part 2: Ensure that any buttons that will be included in your scene have either been used in a "group" as per above "Grouping Buttons" section OR "grouped to itself" as per Step 2 below. This is because buttons require an individual "ID" number to be included in a scene which is only given to a button when it is used in a group or grouped to itself.*

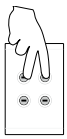
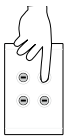
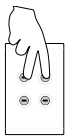
### Part 1 - Create your Scene Button

Creating the button you want to control your scene.

| STEP 1 | STEP 2 | STEP 3 | |
|---|---|---|---|
|  |  |  | |
| *Press & hold top two buttons for 10 sec until they flash alternately.* | *Double quick-press the button you want to control your scene.* | *Press & hold top two buttons for 1 sec.* | ***You're done!*** |

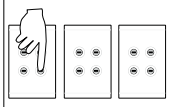
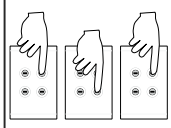
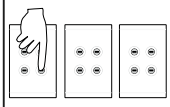
### Part 2 - Grouping a Button to "itself"

Creating an ID number - if button has not been included in group.

| STEP 1 | STEP 2 | STEP 3 | |
|---|---|---|---|
|  |  |  | |
| *Press & hold top two buttons for 10 sec until they flash alternately.* | *Press the button you want to "group to itself".* | *Press & hold top two buttons for 1 sec.* | ***You're done!*** |

### Part 3 - Create your Scene

Now that you have created your scene button and made sure all of your buttons have their own ID number - it's time to create your scene.

| STEP 1 | STEP 2 | STEP 3 | |
|---|---|---|---|
|  |  |  | |
| *Press & hold the scene button for 10 sec until it flashes (entering Scene Learn Mode).* | *Turn on any lights to the desired level for your scene. This may include plug adaptors with lamps.* | *Press the scene button for 2 sec (exit Scene Learn Mode).* | ***You're done!*** |

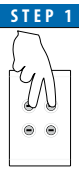
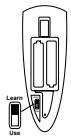
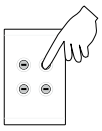
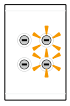
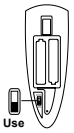
### Quick Tips

- If a light you have included in your scene does not turn on it may mean it has not been "grouped" - see "Important, Part 2" section above.
- To create an "all off" button for when you go to bed or leave the house, put the scene key into learn mode, then go around your house and turn every light on then off, then exit scene learn mode. The scene button will now turn every light off in your home with one press.
- Why not create an "all on" scene in your bedroom as an emergency panic button.
- Another great idea is a dimly lit scene in your hallway for when you get up at night to check on the kids.

# C-Bus Wireless Quick Start Guide

## Programming Your Remote Control

*(getting the buttons on your remote control to turn your lights on and off)*

| STEP 1 | STEP 2 | STEP 3 | STEP 4 | STEP 5 | STEP 6 | STEP 7 | |
|---|---|---|---|---|---|---|---|
|  |  | |  |  | |  | |
| *Press & hold top two buttons on any switch for 10 sec until they flash alternately.* | *Remove the remote back cover and slide switch to the "learn" position.* | *Press the button on the remote you want to control your light.* | *Press the button on the switch that you want to control with your remote.* | *Wait until switches return to learn mode and buttons flash alternately.* | *Press & hold top two buttons for 1 sec.* | *Slide switch to "use" mode and replace back cover.* | ***You're done!*** |

**Quick Tips**

- To program other remote buttons at the same time, simply repeat steps 3 to 5 before performing steps 6 and 7.
- If you want to reassign a remote button that you have used previously, you must first clear it by doing steps 1 to 2 above, then press the remote button you wish to clear, then do quick double press on any button on the switch.
- The "scene" button on the remote allows each remote button to perform a second function. To program the second function, simply press the "Scene" button so that two light bulbs appear in the remote's blue display immediately before performing step 3 above.

# C-Bus Enabled Program

The C-Bus Enabled program is Clipsal's Open Systems program for third party developers and manufacturers, who wish to develop and integrate C-Bus compatible products and software applications. The C-Bus Enabled program ensures 100% compatibility between applications and products developed by third parties and existing products. It also facilitates the successful and seamless integration between the robust and reliable C-Bus protocol standard with other third party protocols.

Companies that develop products and software programs which meet the requirements of the program, and which have been certified by Clipsal, may use the C-Bus Enabled logo on their equipment.

As part of this program, Clipsal has developed new applications and messaging structures that support third party applications such as security and access control, metering, heating, ventilation and air-conditioning control and others. The Clipsal C-Bus control system is widely recognised as the Asian standard for control system architecture, with local manufacture of products and technical support in this region. C-Bus is a low cost, microprocessor based, distributed intelligence system, with patented message structure realising high reliability and robust communications between devices.

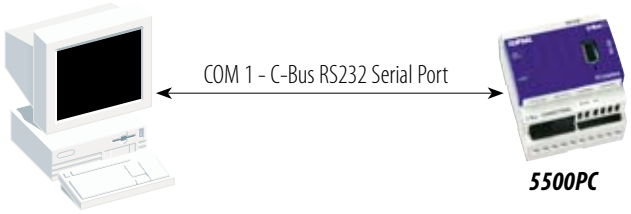
## C-Bus Protocol

The C-Bus protocol is designed on the International Standards Organization (ISO) 'Open Systems Interconnection' seven-layer reference model for communication protocols. The protocol utilises high speed, full duplex communications and provides constant feedback on the operational status of inputs and outputs, including the ability to interrogate the status of specific modules. The protocol utilises communication algorithms based on Synchronous Carrier Sense, Multiple Access with Collision Detection, implemented with Collision Avoidance (CSMA/CD-CA) standards (IEEE Standard 802).

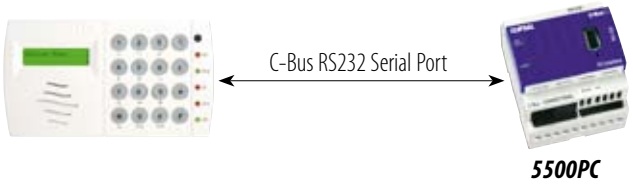
## Serial Integration

The serial C-Bus protocols permits third parties to develop software to interface to the C-Bus via the serial RS232 communications port. The C-Bus protocol document defines the message syntax, to issue commands and retrieve status directly from the C-Bus, via the C-Bus PC Interface. This technique of interfacing is particularly useful between C-Bus and microprocessor embedded applications such as security systems, building and home controllers and HVAC equipment for instance.

**Example 1: PC to C-Bus Integration**




**Example 2: Security to C-Bus Integration**




## Hardware Integration

The C-Bus Enabled program permits the direct implementation of the C-Bus core onto third party equipment. Clipsal have developed a masked processor with the embedded software core, which permits third parties to develop "input and output modules" such as switches, sensors, dimmers, relays and dimmable electronic ballasts. The C-Bus input and output cores consist of all the electronic interface circuitry, network impedance matching components, and C-Bus transceivers to provide full C-Bus integration.

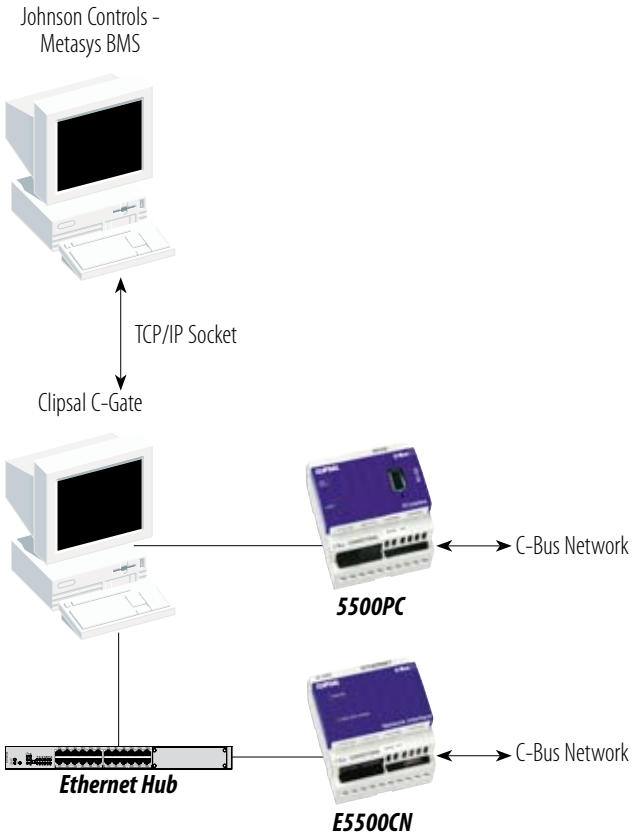
# C-Bus Enabled Program

## Software Integration

### C-Gate

C-Gate, Clipsal's server application is a software application that provides a computer database model of the C-Bus network. When installed on a computer, C-Gate automatically models the C-Bus networks attached to it, any changes to the network or network parameters are automatically updated in the C-Gate database. C-Gate provides a high level interface to third party programmers, diminishing the need for software developers to know the C-Bus protocol. C-Gate is written in Java, and is fully compatible with Windows, Linux and Unix operating systems. C-Gate may be embedded into third party applications and is ideal for interfacing between building management system software and C-Bus for instance, and provides the gateway between C-Bus and other protocols. Clipsal C-Gate is a software program available in various network configurations, pricing is available through Clipsal Integrated Systems.

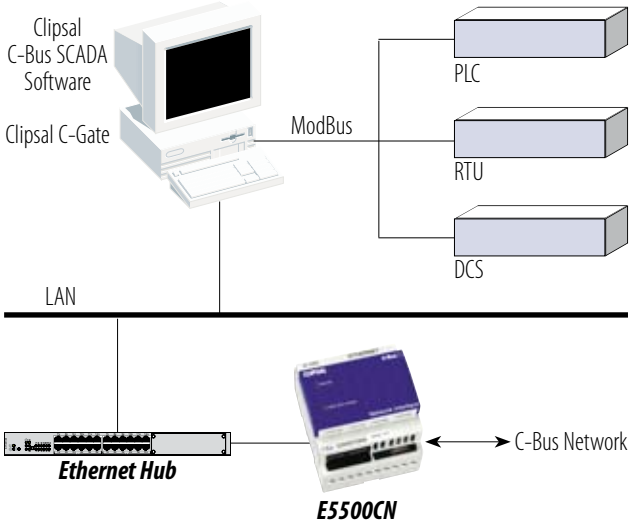
**Example 1: BMS to C-Bus Integration**




### C-Lution

C-Lution, Clipsal's SCADA software includes a driver library to interface with proprietary equipment such as Building Management Systems (BMS), Programmable Logic Controllers (PLC), Remote Terminal Units (RTU), etc. Over 130 3rd party hardware and software protocols are available for integration. C-Lution supports data exchange between applications via OPC (open access to field data), ODBC (import/export data in standard database formats), DDE and API.

**Example 2: C-Lution SCADA - 3rd Party Network Integration**




## How To Apply

The C-Bus Enabled Program is open to all third party companies who have a desire or need to interface to the industry standard C-Bus control system. The serial protocols and C-Bus core are available through Clipsal Integrated Systems. Companies must first make an application to Clipsal, and must enter a confidentiality agreement. Clipsal provides technical support and ongoing updates to the C-Bus documentation to all registered companies and provides the certification for the C-Bus Enabled Program.

# C-Bus Design Guide

## 1 Introduction

### The C-Bus System

Clipsal C-Bus is a control system that can be used to control lighting, electrical equipment, audio-visual equipment and other electronic systems in commercial, hotel, industrial and residential installations. A reduction in the amount of mains cabling, reduced installation times, energy savings and extra control system functionality make C-Bus a cost effective alternative to conventional wiring. C-Bus is a microprocessor based system and requires an installer to program the operating variables and control relationships between C-Bus Units. This guide outlines a suggested method for design and installation using C-Bus, and should be read in conjunction with the C-Bus Technical Manual (5000M/2), which provides a detailed overview of the C-Bus system.

### Objective

This guide provides a system to aid C-Bus designers; to design and plan C-Bus installations. Additional technical support is offered by Clipsal Integrated Systems offices. If assistance is required, contact your local CIS office.

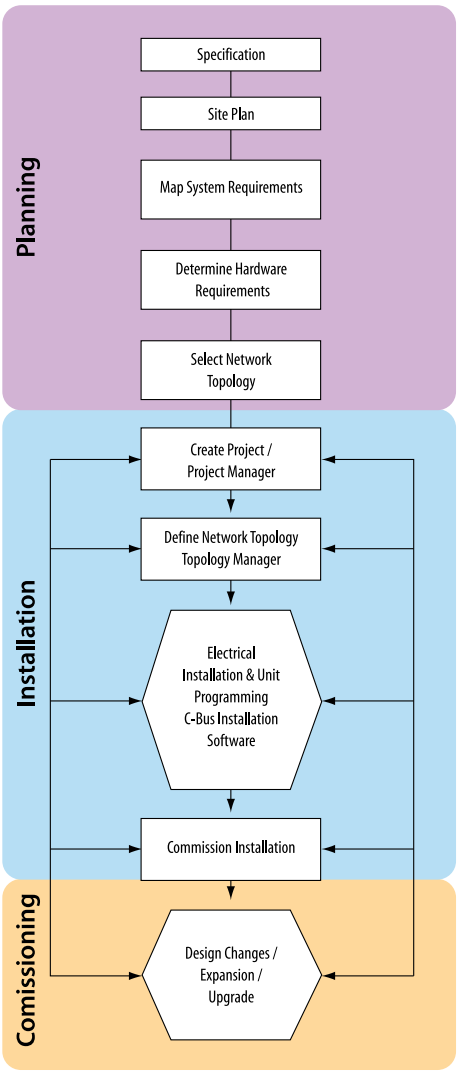
### System Requirements

The first step in using C-Bus is to define what is required of C-Bus; that is, how devices and electrical loads are to be controlled and what features are required by the installation.

## 2 Methods of System Design

### Design Philosophy

There are several methods of designing and installing C-Bus. An overview of the installation approach is shown below.



# C-Bus Design Guide

## 2 Methods of System Design

### Installation Approach

**Planning and Design**

The most important phase of any C-Bus installation is in the planning and design of the system. Accurate planning requires a good understanding of the capabilities of the system, and the requirements of a successful installation (refer to the Design Checklist). It is also an advantage to fully define the functional specifications for the installation before design work begins. In this way, designers can realise the full potential of the C-Bus system, and get maximum performance from it.

The planning phase usually involves mapping the system requirements, and determining the hardware needs of an installation. Thought should be given as to the placement of the hardware, and the cabling requirements. Programming & functionality requirements should also be fully investigated at this stage. Strict adherence to any documentation procedures is necessary.

### Installation

Once the design phase has been completed, installation may begin. Several simple steps are typically followed:

- Implementation of Programming Requirements of the Design on a Personal Computer (Build C-Bus Database).
- Unit Initialisation and Programming (One at a Time).
- Cabling and Electrical Installation of the Hardware.
- Finalization and Further Programming of Units on the Network as required.

The details of the design are first input into a personal computer using the C-Bus Installation Software. Hardware should then be initialised (on a Unit by Unit basis). This involves the assignment of a Unit Address to each Unit, one at a time. In this way Units can be uniquely identified once installed on the Network. It is recommended that each Unit be clearly labeled for easy identification before final electrical fitting takes place. Testing and any further programming may be undertaken at this time, or tackled once all Units have been physically installed.

### Commissioning

Subject to compliance with the specification, the system may now be commissioned. Modifications or design review can be undertaken at any time, often requiring programming changes only. A well designed system should seldom call for the installation of new hardware, except where revised specifications dictate the necessity.

### Programming Principles

All C-Bus devices require programming (with the exception of Power Supplies). This is achieved by dedicated software running on a Personal Computer.
Unit programming is carried out to achieve the following objectives:

- Create/Define Units on the C-Bus Network
- Identify each Unit using the C-Bus addressing convention
- Create/Define/Edit control relationships between Inputs and Outputs
- Edit Unit operating parameters

The operating parameters vary from Unit to Unit, depending on it's type. They include:

- Key Functions
- Timer Functions
- Dimming Functions
- Toggle (On/Off) Control
- Preset Levels
- Custom/Other Functions
- Output Switching Logic Assignments
- Power Fail Recovery Status
- Power Up Sequences
- Dimming Rates
- Indicator Options
- Sensor Switching Conditions
- Override Controls (Enable/Disable)
- Error Status Options

# C-Bus Design Guide

## 3 Implementing C-Bus Designs

### Addressing Conventions

**Introduction**

Once a basic list of hardware requirements has been established, planning of the programming requirements of an installation can begin. The C-Bus system uses a simple addressing scheme to identify Units, Groups, Applications, Areas, and Networks. The purpose of each parameter will be discussed in the next section.

**Group Addressing**

The Group Address is usually related to the output connected to the terminal of the Output Unit. Hence the Group Address should accurately describe the load or device being controlled. Alternatively, numerical designators can be used for describing outputs such as lighting circuits. Up to 255 Groups in a single C-Bus network can be defined (255 minus the number of Area Addresses defined).

Valid Group Address description include:
- Bedroom Lights
- L4-2B
- Main Office Lights
- A4-2L-3
- Pool Pump

The default Group is "Unused".

**Area Addressing**

The Area Address is a convenient method of addressing multiple output channels collectively. Large areas consisting of many Units may be controlled from a single point on the C-Bus system. Individual loads (Groups) can still be controlled. Each Unit (Inputs and Outputs) in a control area must be assigned the same Area Address. The Area Address must be unique and must not be repeated as a Group Address in that Application or Network. Up to 255 Areas can be defined (255 minus the number of Group Addresses defined).

Examples of valid Areas are:
- House Lights
- Banquet Room Lights
- Outside Lights

The default Area is "Unused".

**Application Addressing**

Applications are used in the C-Bus system to divide the Network into independent functional systems. All Group Addresses in any Unit are associated with that Unit's Application, and commands issued by an Input Unit will affect only Output Units with matching Application and Group Addresses. Up to 255 Application Addresses can be used. By default, two Applications have been defined: Lighting and Heating. Clipsal Integrated Systems has reserved and defined commands for other Applications such as security and metering, for more information contact Clipsal Integrated Systems. The installer has the facility to define other Applications.

Input Units and Output Units within one Application will operate independently of other devices in another Application, even if Group Addresses are repeated across Applications on the same Network.

Examples of valid Applications are:
- Lighting
- Heating
- Air-conditioning
- Security

The default Application is "Lighting".
The default Group is "Unused".

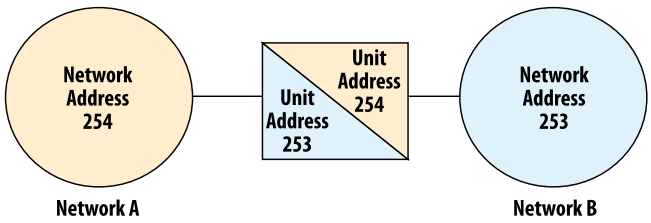
**Network Addressing**

The Network Address is used to identify Networks in a Multi-Network C-Bus installation. Each Network may be interconnected using a C-Bus Network Bridge.

The Unit Address of the Network Bridge must match the Network Address of the adjacent Network. This applies to both sides of the Bridge, and is required to successfully establish communications between these Networks. The C-Bus Installation Software automates this task by reserving Network Addresses for use as Network Bridge Unit Addresses. This is achieved using the configuration information as defined by the Network Topology. In practice the Network Address describes a physical region, area or entity. Up to 255 unique Network Addresses can be defined.

Examples of valid Networks are:
- First Floor
- Movie Theatre
- My House
- Building 12A

The default Network is the "Local Network".



# C-Bus Design Guide

## 3 Implementing C-Bus Designs *(cont'd)*

### Assigning Addressing

The C-Bus design requires that all Units on the Network are uniquely identified by a Unit Address. Loads must also be assigned a control Group Address. Various methods of assigning addresses and their descriptions are now discussed.

**Grid Method of Addressing**

The Grid Method is the procedure whereby Unit Addresses are conveniently allocated to C-Bus Units as a function of physical location in the installation. A grid consisting of 10 columns by 10 rows is superimposed over the site plan locating C-Bus Units and loads. This defines the Unit Addresses.

This method does however have limitations, when:

- Two or more Units are located in the same physical grid co-ordinate.
- The grid size exceeds 10 columns by 10 rows, for large or diverse projects (more than the maximum 100 Units are required for multiple Network installations.)

When the Grid Method becomes insufficient, alternative methods need to be explored.

**Systematic Address Allocation**

Unit Addresses are assigned in an ascending order on an installation plan, traversing left to right, up and down. This process is repeated systematically until all Units are covered off.

**Reserved Addressing (Recommended)**

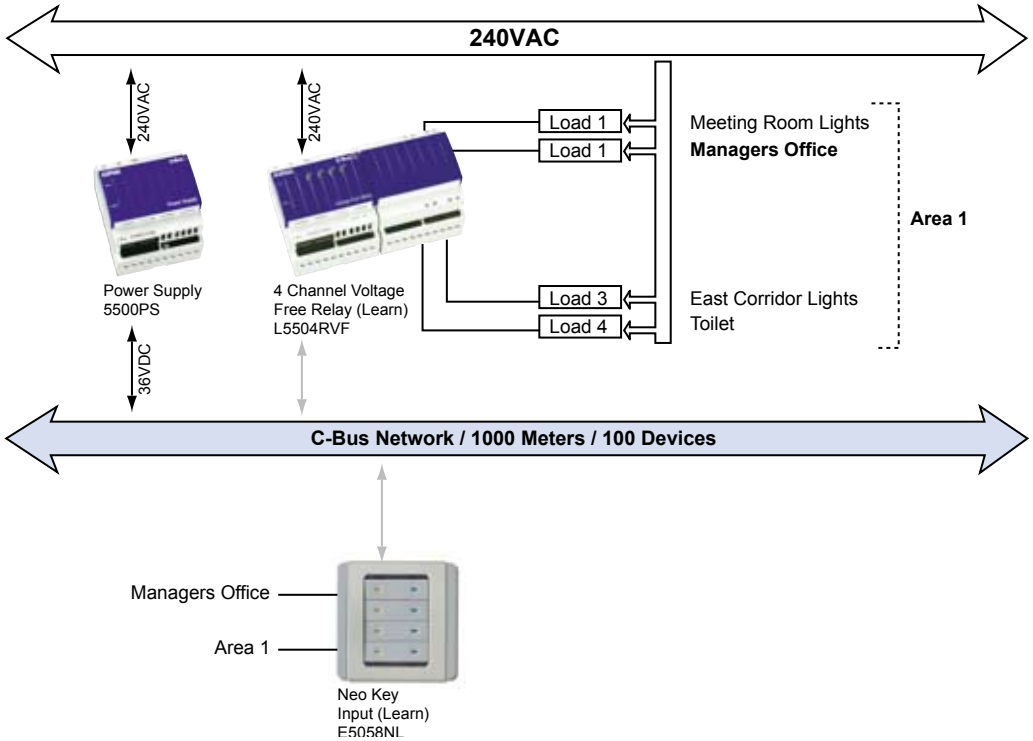
With 255 unique three digit decimal Unit addresses available to the designer, an allocation or block of numbers could be assigned to specific C-Bus device types. This is known as 'Reserved Addressing'.

A typical Reserved Addressing scheme is shown below;

- PC Interface* 000
- Four Channel Relays 010-019
- Four Channel Dimmers 020-029
- One Gang Key Inputs 030-039
- PIR Occupancy Sensors 040-049 etc. . .

** The PC Interface must be allocated the Unit Address 000 in every Project.*

## C-Bus Addressing - Example Configuration



# C-Bus Design Guide

## 4 Specifying Large Installations

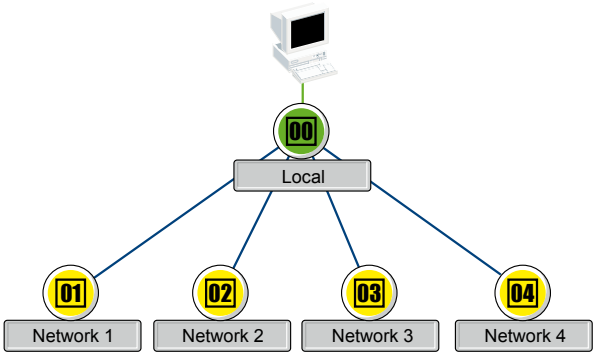
### Multi-Network Installations

The C-Bus system has been designed for a maximum number of 100 Units on each Network. When an installation requires control exceeding this number then Networks may be interconnected with the use of C-Bus Network Bridges or C-Bus Ethernet Network Interfaces.

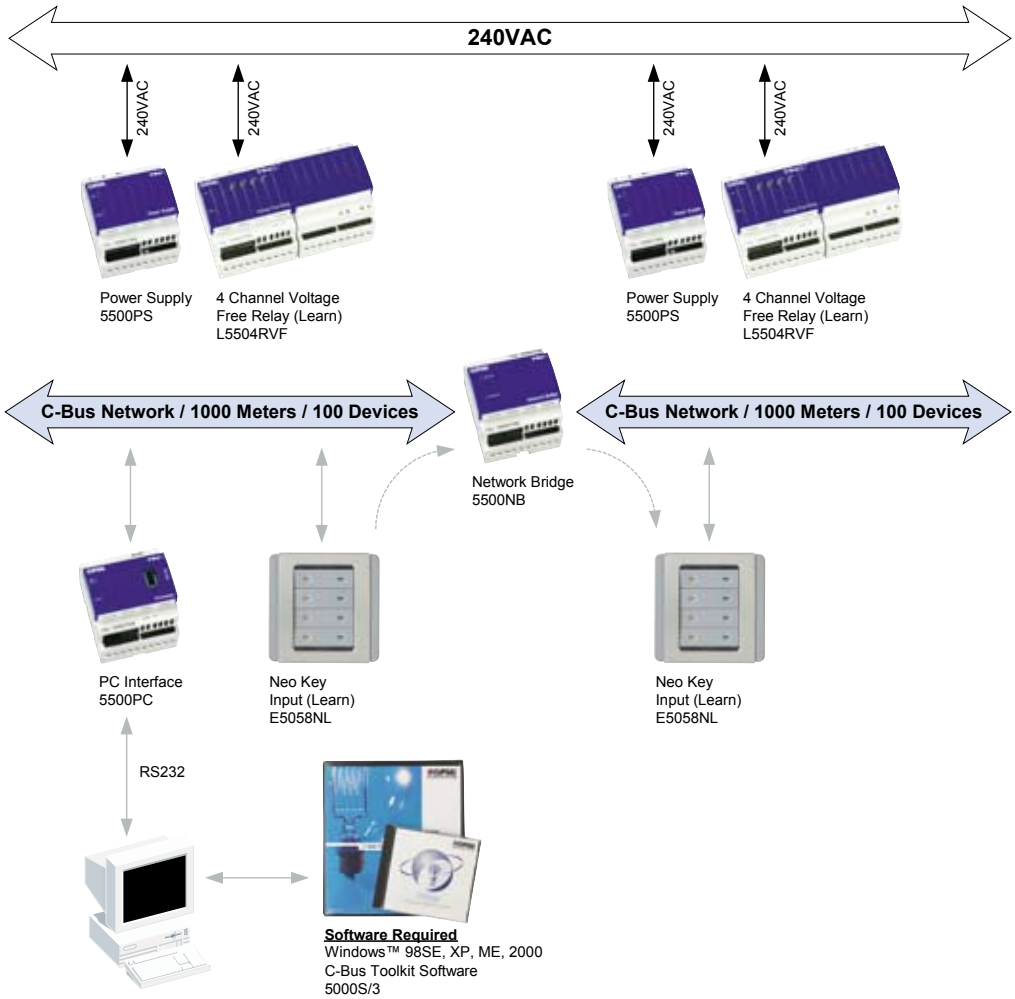
**Procedures and Design**

The design process and procedures are the same as previously discussed. Each Network and its operation needs to be defined separately. By partitioning the design, sub-systems can be defined and programmed in a systematic process. The way in which the Networks are interconnected is called the Network Topology. When using Bridges, it is recommended that attempt be made to minimise the 'depth' of the Network Topology. Minimizing the depth ensures faster communications between the Local Network and Remote Networks. It is further suggested that in such applications the Local Network functions purely as a 'Backbone Network', servicing all other Networks, with no active Input or Output elements ie, the Local Network consists of the; PC Interface, Power Supplies, and Network Bridges.

C-Bus Network Interfaces can also be used when large systems are required. The C-Bus Network Interface is a 10-Base T Ethernet compliant device. This allows a C-Bus network to be connected to an Ethernet network. In this approach each C-Bus network is treated as a separate network and the only limitations to system design are PC hardware resources (memory) and network bandwidth, dependent on the response times required. For large systems where central control with real time response is required, the C-Bus Ethernet Network Interface approach is recommended.



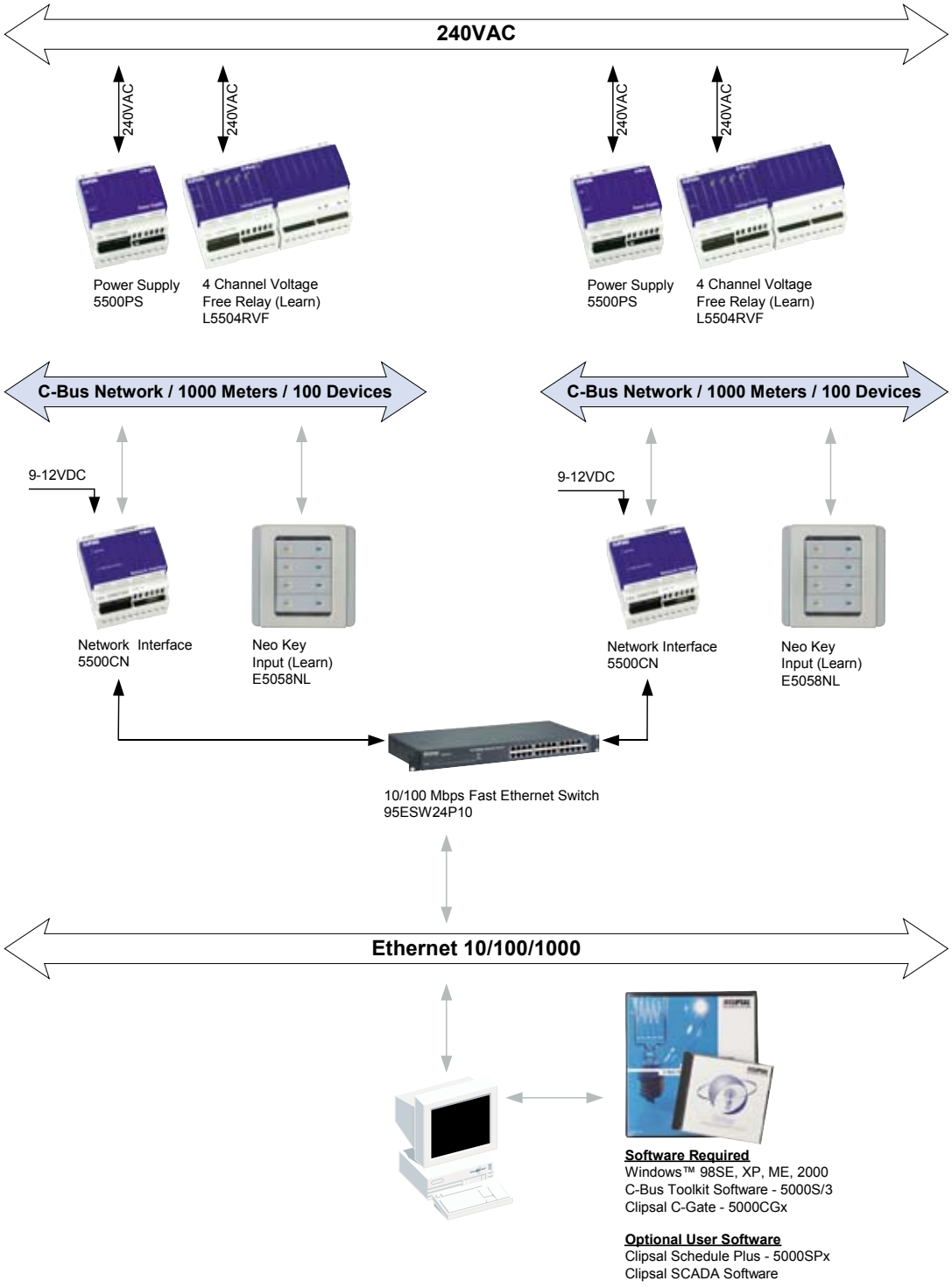

### C-Bus Network Bridge Interface Architecture



# C-Bus Design Guide

## 4 Specifying Large Installations *(cont'd)*

### C-Bus Ethernet Network Interface Architecture




**Software Required**
Windows™ 98SE, XP, ME, 2000
C-Bus Toolkit Software - 5000S/3
Clipsal C-Gate - 5000CGx

**Optional User Software**
Clipsal Schedule Plus - 5000SPx
Clipsal SCADA Software

# C-Bus Design Guide

## 5 Design Documentation

### Documenting Hardware Installation

As with any conventional electrical installation, documentation of the details of the design are required. This documentation is not only used throughout the planning stages, but also provides an invaluable record as to the placement of hardware, and the cabling structures employed. In addition, vital information may be communicated between the designer or the specifier, and the installer, where contract labour is to be utilised.

Documentation of the hardware installation is usually best achieved through CAD generated site drawings, presented in the conventional industry standard format. The following drawing shows an example of a typical installation plan. The drawing shows product to be installed, and their location. Switching and other control relationships are also depicted using easily decipherable conventions similar to those used for conventional wiring.

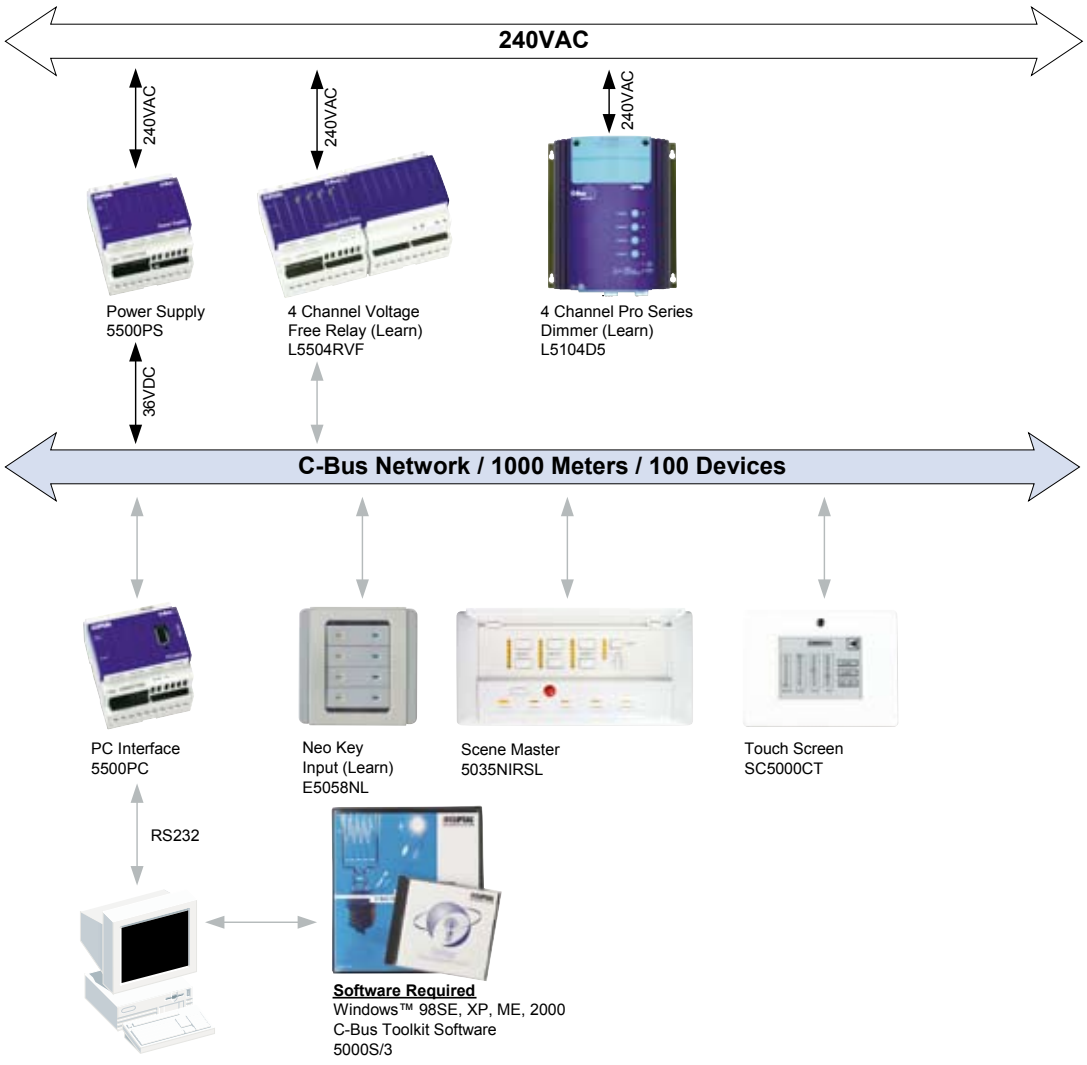
### Documenting Programming Requirements

All C-Bus programming requirements for any given project can be specified during the planning process. This allows 'on-paper' design of the Unit configuration, and can form a part of the documentation retained as a matter of record once the installation has been completed. Typically tables are used to specify all Units required for the installation, and can further be used as a template for the allocation of addresses. Control relationships can easily be established, and basic operating parameters dictated. Programming the Units on a C-Bus Network then becomes a simple matter of transferring the design information from paper, to the PC using the C-Bus Installation Software, and downloading to the hardware.

There is a different template for each different C-Bus device type, where appropriate controls that are relevant for that type of Unit are presented.

## 6 Programming Methods

There are three preferred methods for programming the C-Bus modules; this chapter discusses these alternatives. Programming is conducted using a C-Bus PC Interface to connect to the C-Bus Network. Programming can also be completed using C-Bus Learn Mode - see attached section on Learn Mode.



# C-Bus Design Guide

## 6 Programming Methods *(cont'd)*

### Method 1, Individual Unit Programming

The Units are initialized one at a time, on-the-bench or in an office environment. The Units may or may not be fully programmed at this stage. Any programming variables may be entered, including control relationships, and then the Units are installed into the building. It is important that the contractor uses the labels provided with the C-Bus Units to record the Unit Address, Network and Part Number (Part Name), such as location, to ensure correct placement of the Unit on site. Once installed, any further programming changes can be entered, and the installation may be commissioned. It is important that each module has a unique Unit Address otherwise unpredictable behavior may result.

### Method 2, Programming The System In-site

The Unit Addressing may be programmed on site, one Unit at a time, as they are installed. The installer should mark the label provided and attach it to the Unit, with the Unit Address, Network, Part Number, and location. All other programming variables are then entered, including control relationships.

### Method 3, As Installed Programming

In this method, all Units are installed into the building, unprogrammed. Factory default settings of the Unit Address for all products in the C-Bus range is 255. The Network will exhibit unpredictable behavior at this stage, since Unit Addresses will not be unique. The C-Bus Toolkit Software v3.0 incorporates a new Network Unraveller facility. This has the ability to detect and resolve Unit Addressing conflicts automatically during a Network scan. The Unraveller has limited capabilities, and should not be relied upon to unravel large Networks at the time of installation.

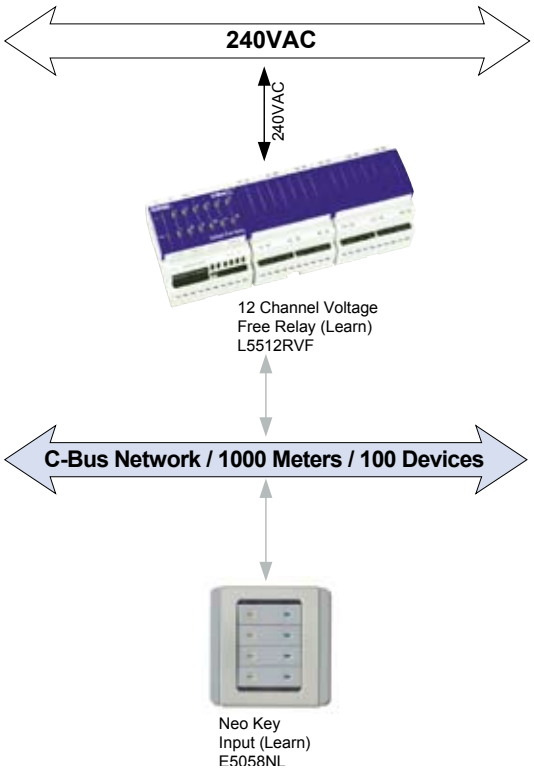
This method has the advantage of not requiring any pre-programming of C-Bus Units, however this comes at a price. Once the Network has been unravelled, and a unique Unit Address assigned to all Units, each must be located and identified within the installation using the labels provided. This process may be aided using the Quick Toggle facilities built into the Installation Software, but can be cumbersome for larger Networks. The installer should mark the label provided and attach it to the Unit, with the Unit Address, Network and Part Number.

With the Units installed, and with each Unit having a unique Unit Address, each Unit may in turn be interrogated on the C-Bus Network, and the operating parameters and control relationships programmed into it. Individual Unit programming, programming the system in-situ, or as installed programming may be used, but each method is prone to misuse and error. If the Unit Addresses are incorrectly programmed or if the equipment is incorrectly placed in an installation, unpredictable behavior may result. The designer and installer must ensure the planning process and installation documentation are correct, and the placement of the equipment proceeds in a systematic manner. Identification labels should be used on all C-Bus Units. The templates have been produced to simplify the task of allocating Addressing information and assist in the programming methods as recommended by Clipsal Integrated Systems.

Labels are included with PC Interface and Network Bridge Units. Completed labels can be stuck on to the rear of the product. Alternatively, the label may be adhered to the front of any wall mounted Unit (such as a Key Input Unit) for easy reference without the need to remove any screws. In this case the label should be positioned on the edge of the grid plate such that it will be covered by the surround when snapped in place. Key input plates may also be labeled according to key function, or controlled load, for the benefit of the user. 2000 Series and metal plate input Units may be hot stamped or engraved as appropriate. Classic (C2000) Series plates incorporate a small label window. Typical label examples include 'Warehouse', 'Office', 'Entry', 'Welcome', 'Goodbye', and 'Party'. Contact your local Clipsal sales representative for more information.

### C-Bus Learn Mode

Learn Mode is designed for contractors to program small to medium scale systems without the use of a PC. This method is well suited to small networks, with simple functionality. Networks with a large number of devices and complex functions should be programmed using the C-Bus Installation Software. Learn Mode is activated by pressing the manual override keys on an output unit for a predetermined time. For more information on programming Learn Mode see the following section for an in depth guide.



# C-Bus Design Guide

## 7 C-Bus Wiring Rules

C-Bus is a safe extra low voltage electronic control system, primarily used in mains rated load control applications. A C-Bus Network consists of various Input, Output, and System Support Units which are interconnected using Unshielded Twisted Pair (UTP) LAN cable. Some simple rules should be observed when specifying or designing any C-Bus installation.

**Power Supplies**

The C-Bus Power Supplies and C-Bus Output units provide the safe extra low voltage of 36VDC to the Network. Each C-Bus Unit typically requires 18mA current to operate and each Power Supply is capable of supplying current to 17 C-Bus Units. When a Network consists of more than 17 Units, additional Power Supplies can be added to the Network to restore the C-Bus voltage levels to within operating limits between 15-36VDC Distributed Power Supplies will share the Network load evenly.

- One C-Bus Power Supply for every 17 C-Bus Units, and
- Distribute Power Supplies evenly on the C-Bus Network

The C-Bus Power Supply is a specially designed Unit offering the impedance characteristics essential for communication signal propagation on C-Bus. Ordinary 36VDC power supplies must not be used in conjunction with C-Bus.

**Maximum Cable Length**

This depends on Network impedance resulting from the choice of cable type. The cable has a finite and known impedance comprising of resistive and capacitive components, which should be taken into account when designing a C-Bus system. The upper limit of cable length at which communication can no longer be guaranteed reliably for Category 5 UTP cable is 1000 meters.

- The maximum cable length between any two Units on a Network should be limited to less than 1000 meters.
- Allow a maximum total cable length of 1000 meters on each Network.
- A Network Bridge should be used to split the installation into multiple Networks when the total cable length exceeds 1000 meters on any single Network.

**Network Size**

The maximum number of C-Bus Units on any Network should not exceed 100 Units. If an installation requires more than 100 Units, then a new Network should be added, connected through a Network Bridge.

- A maximum of 100 standard C-Bus Units per Network.
- A maximum of 255 Networks per Installation.

**Network Topology**

C-Bus devices can be interconnected as a part of a single, or multiple Network installations. Segregation of a large Network into multiple Networks may be required for any of the following reasons:

- When the required C-Bus cable length exceeds 1000 meters;
- To overcome addressing limitations;
- To reduce local communications traffic on the Bus, and thus speed up response times;
- To accommodate the physical layout/structure of the building (for example in a multi story building, one Network per floor may be required);

The following basic guidelines should be observed:

- Minimize the depth of the Network Topology for faster, more effective communications;
- Consider use of C-Bus Ethernet Network Interface units to integrate with a high speed Ethernet backbone.
- Distribute Units on separate Networks proportionally to avoid communications and power supply issues (for example 120 Units required - split into two Networks of 60 Units each where possible, rather than say 100 Units on the first Network and 20 Units on the second).

# C-Bus Design Guide

## 8 Practical Wiring Considerations

The C-Bus is designed to operate at a safe, extra-low voltage of 36VDC, with optical and/or galvanic isolation from mains voltages. The installer must ensure that acceptable wiring practices for extra low voltage cabling are adopted with C-Bus.

In particular, the routing of the C-Bus cable near mains wiring, where physical separation criteria between cables need to be satisfied. In this respect C-Bus is treated as a data cable, and the same practices should be employed. The C-Bus, operating at the safe extra low voltage of 36VDC, allows electrical work to be performed on the C-Bus side while the system is powered on. The C-Bus side with short circuit protection ensures that the equipment will not be damaged if the supply is shorted for an indefinite period. The installer needs to be aware that shorting the C-Bus Network will disable operation of the C-Bus Network as long as the short circuit persists. A benefit of the C-Bus method of wiring is that wiring of the C-Bus Units may be accomplished in a number of ways. The C-Bus Units are all wired in parallel on the Bus, and the Units may be daisy chained, or be part of a branch/star structure or a combination of these. Closed loop ring structures are not recommended.

Installation of every Unit on the C-Bus Network requires connection to the Unshielded Twisted Pair C-Bus Network Cable. This connection is polarity sensitive, and is clearly marked on the terminal block of the Unit.

Clipsal has Category 5 cable for use with C-Bus (Catalogue Number 5005C305B). The cable features eight single core conductors (four Unshielded Twisted Pairs (UTP), encased in a pink outer sheathing. Pink has been chosen in order to distinguish between the C-Bus cabling in an installation. A second feature is that the cable may for short runs be routed into a switchboard close to mains cable.

The outer sheath insulation resistance is suitable for this application. The following illustration shows the recommended technique for cable termination giving optimum performance, and immunity from electromagnetic interference (EMI).

*Note: The mutual twist of solid and dotted conductors of opposing colored conductors. This ensures a good electrical termination, with favorable common mode noise characteristics.*

### Laying of C-Bus Cabling and Precautions

Close proximity parallel runs with mains voltage cables should be avoided where possible.

If the C-Bus Network cabling must cross mains voltage cabling it is preferred that the cross over is done at right angles.

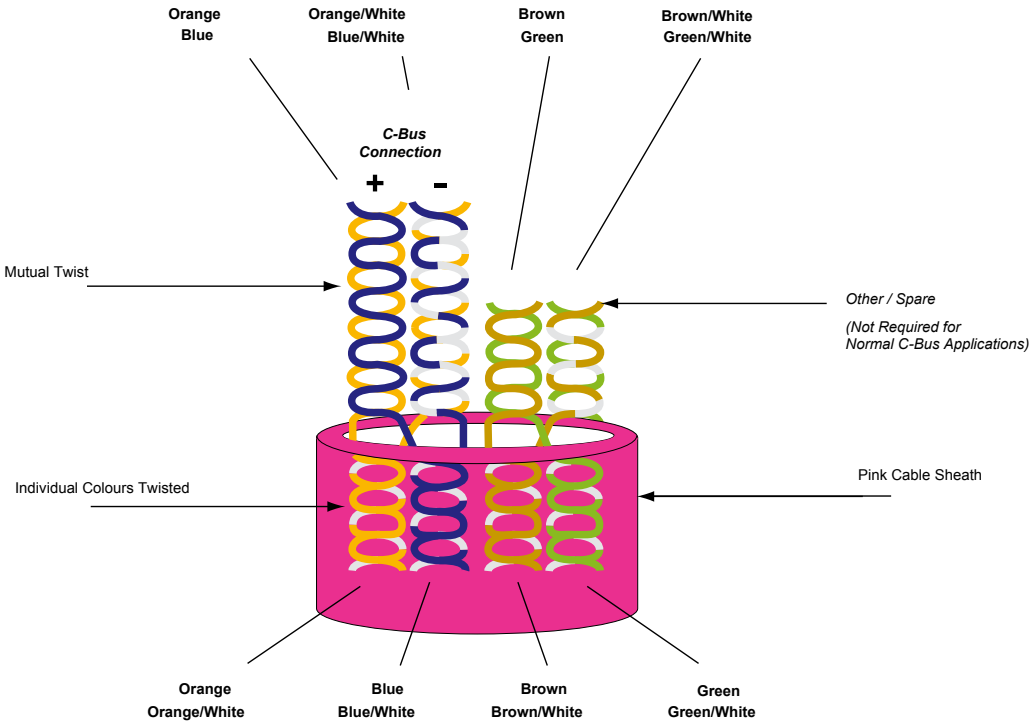
The C-Bus Network cable is kept at least 50 millimeters from mains voltage cabling, in accordance with the appropriate safety standards (AS/NZS 3100) or as determined by local regulations. It is recommended that, wherever possible, at least 100mm segregation is maintained for superior communications performance.

- The type of cable used in a C-Bus installation usually consists of solid core conductors. This cable type is prone to stretching or breaking if badly installed.
- Multiple pairs of UTP may be used in parallel, remembering to preserve the twisted pair nature of the cable. The resulting increase in conductor cross sectional area serve to reduce any voltage drop over the length of the cable.

### C-Bus Terminations

Care must be taken when connecting C-Bus Units to the Network. The reliability of the system, and the quality of the installation depends upon the reliability and quality of the termination made. The Category 5 cable used in C-Bus installations consists of solid core conductors. This type of cable is typically very brittle, and will break easily. They are not tolerant to multiple rewiring. It is strongly recommended that a fresh termination is always made when adding and replacing C-Bus Units, modifying the system, or rewiring the installation. Using bootlace crimps, or ferrules provides the most reliable termination.

Terminate of devices mounted in distribution boards requires an RJ45 crimp tool. Terminated interconnect leads are provided with each DIN rail output unit.



# C-Bus Design Guide

## 8 Practical Wiring Considerations *(cont'd)*

### Connection to A Personal Computer

Connection of the PC Interface to the Serial Communication Port of a Personal Computer is made via the 9 pin D type connector or 2 x RJ45 jacks fitted on the Unit. The installer may also provide access to the PC Interface through a wall mounted connector, such as the Clipsal 2231/1 data connection plate.

Connection can also be via a C-Bus Network Interface. This will require a C-Bus Network Interface to be connected to an Ethernet Hub or Switch and a PC with an Ethernet compatible Network Interface Card (NIC).

### Placement of C-Bus Equipment

The placement of C-Bus Output, and System Support Units in any installation is made with consideration to available space, in relation to other service requirements, such as air-conditioning ducts and accessibility for maintenance purposes. Many choose to install the C-Bus hardware in a Clipsal Distribution Panel, located adjacent the relevant Distribution Board. Input Units are placed as required. Take particular heed of any specific installation instructions shipped with the product. Sensor devices such as the Light Level and Temperature Sensors, as well as the Passive Infra Red (PIR) Occupancy Sensor all require special consideration when choosing an installation location. This avoids false triggering and erroneous sensor readings.

Every effort should be made to avoid placing C-Bus Equipment Network cabling in proximity to sources of excessive electrical noise or other electromagnetic interference (for example heavy inductive motor load switching).

The C-Bus Units have been designed to operate, over an ambient temperature range between 0˚C and 45˚C, the Units should be placed away from heat sources such as air-conditioning compressor outlets and hot water services, and Units should not be covered by insulation material if mounted in the roof space. Avoid installing mains powered C-Bus equipment in areas of high humidity, such as bathrooms and laundries.

### Over Voltages and Transients

**C-Bus Side**

The C-Bus Network connection of every C-Bus Unit incorporates transient protection circuitry to safeguard against the effects of unintentionally induced transient voltages. During transient conditions, information may be lost, however the C-Bus system incorporates a mechanism to recover from such losses. If the C-Bus is run between buildings, or there is a likely hood of over voltage conditions, then over voltage protection is recommended on the C-Bus cable. The over voltage equipment used should have a rated continuous operating voltage of approximately 50VDC such as an in-line telephone filter or similar.

**Mains Side**

The mains voltage must be limited to the range specified for any Unit which is mains powered. Each Unit incorporates transient protection circuitry, and additional external power surge protection devices is recommended to be used to enhance system immunity to power surges. It is strongly recommended that over voltage equipment is installed to protect the C-Bus equipment from transients and over voltage conditions. Clipsal offer the 970 range of over voltage and over current equipment for this application.

**Megger Testing**

Megger testing of an electrical installation which has C-Bus Units connected will not cause any damage to the C-Bus Units. Since C-Bus Units contain electronic components, the installer should interpret megger readings with due regard to the nature of the circuit connection. Operation on Isolated Supplies Isolated supplies such as local generator sites may have inadequate output frequency stability to allow C-Bus dimmer Units to function correctly. The dimming ability of the C-Bus Dimmer Units can be affected if the mains supply frequency is out of the specified range. The use of isolated supplies does not affect the operation of any other C-Bus devices.

**Operation on Inverter Supplies**

All C-Bus Units which are mains powered are designed to operate from sinusoidal voltage waveforms. Any inverter which produces a square-wave voltage output may cause damage to or degrade the performance of the C-Bus devices connected to it.

**Working Live on the C-Bus Network**

One of the many advantages of the C-Bus safe extra low DC operating voltage, is that connections can be made whilst the Network is still powered up. Should a short circuit occur while this is happening, the Power Supply's output current limiting/overload circuitry will protect it from damage for an indefinite period of time.

**Short Circuits on the C-Bus Network**

Output Units will assume the state defined on the hardware signifying to the user that a C-Bus wiring fault has occurred. Units on the C-Bus Network will be rendered inoperable until such time as the short circuit is removed. No damage can result from such a short circuit.

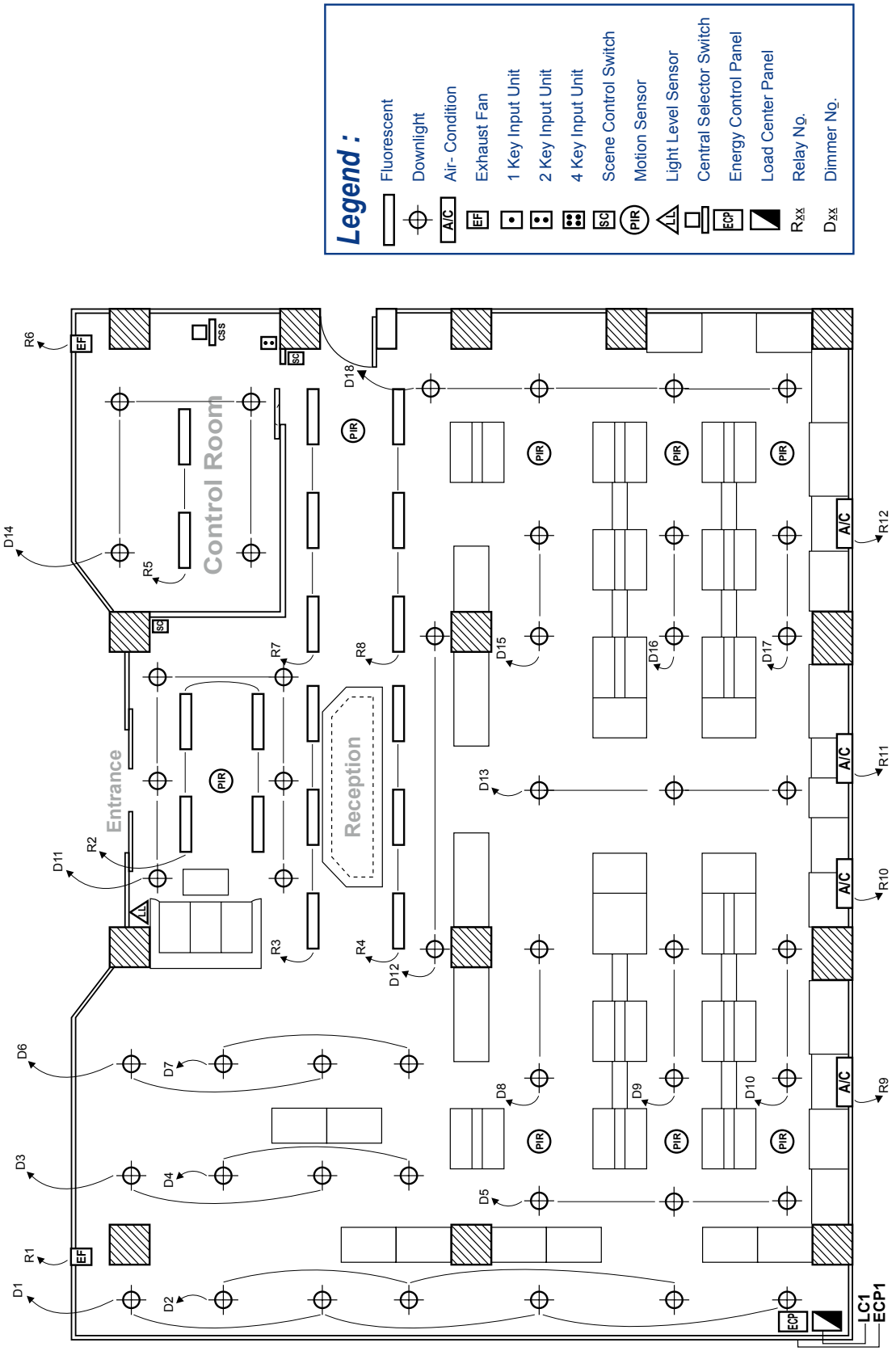
**Open Circuits on the C-Bus Network**

An open circuit on the C-Bus Network may result from a poor termination, or in the unlikely event of a cable breakage. If C-Bus Units are daisy chained on the Network, an open circuit may effectively remove C-Bus power from the rest of the Network. Underpowered or missing Units will not appear on the Network, and will not operate correctly. This is a good reason to distribute power supplies on any C-Bus Network. An open circuit will not otherwise affect operation of the C-Bus Network. No damage can result from an open circuit.

# C-Bus Design Guide

## 9 Example Configurations

### Commercial Office Lighting Control System Architecture

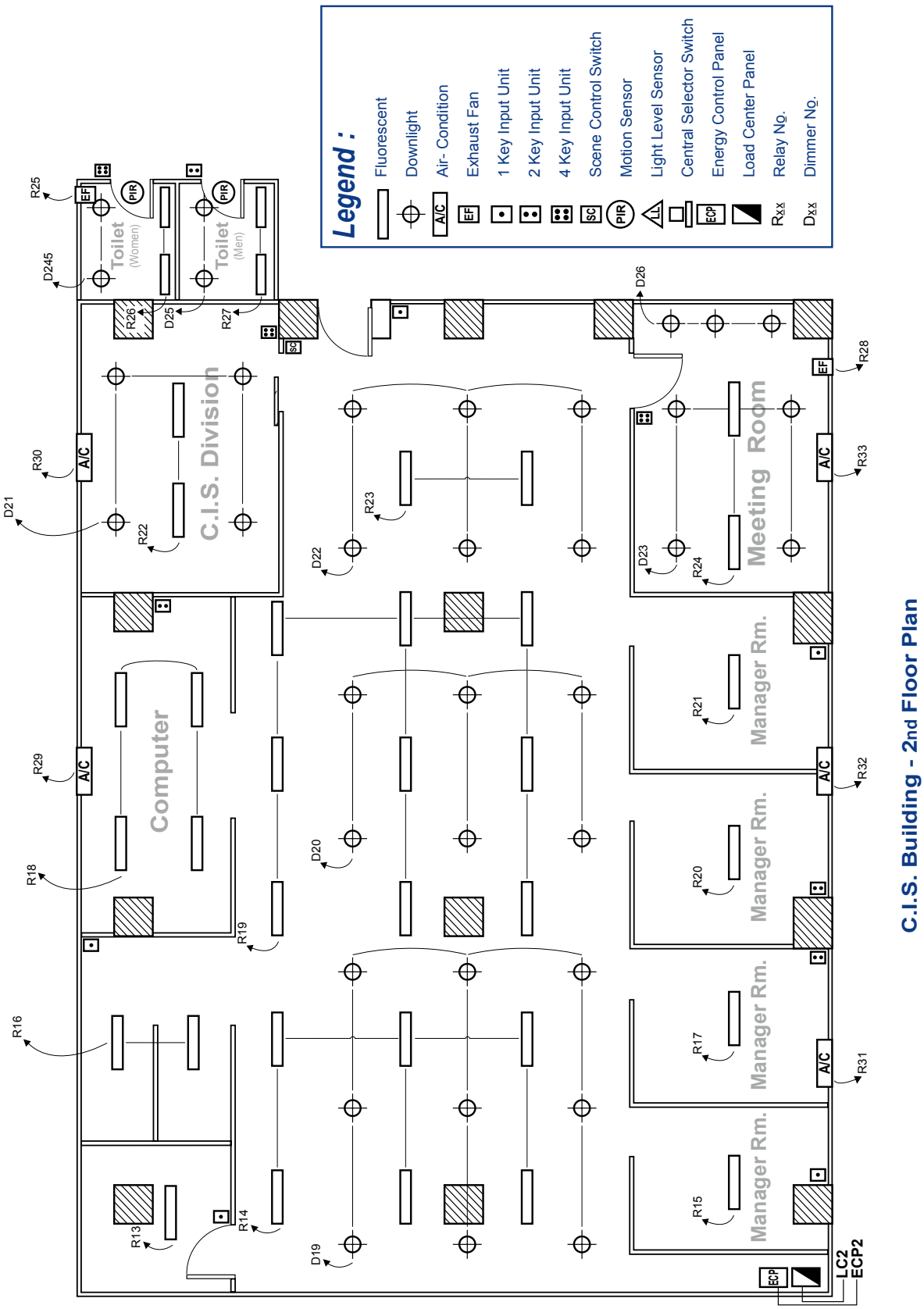



C.I.S. Building - 1st Floor Plan

# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

### Commercial Office Lighting Control System Architecture

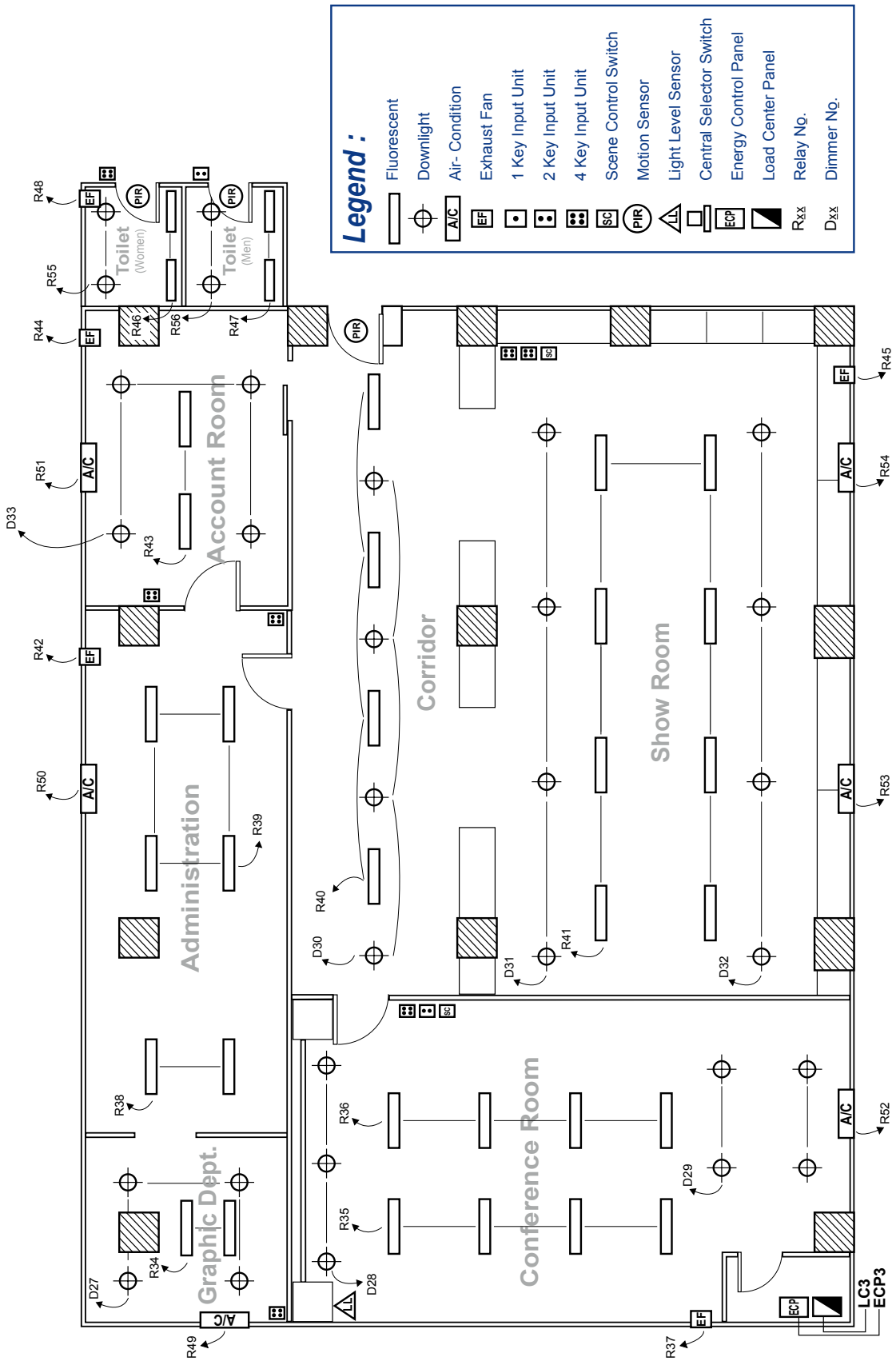



C.I.S. Building - 2nd Floor Plan

# C-Bus Design Guide

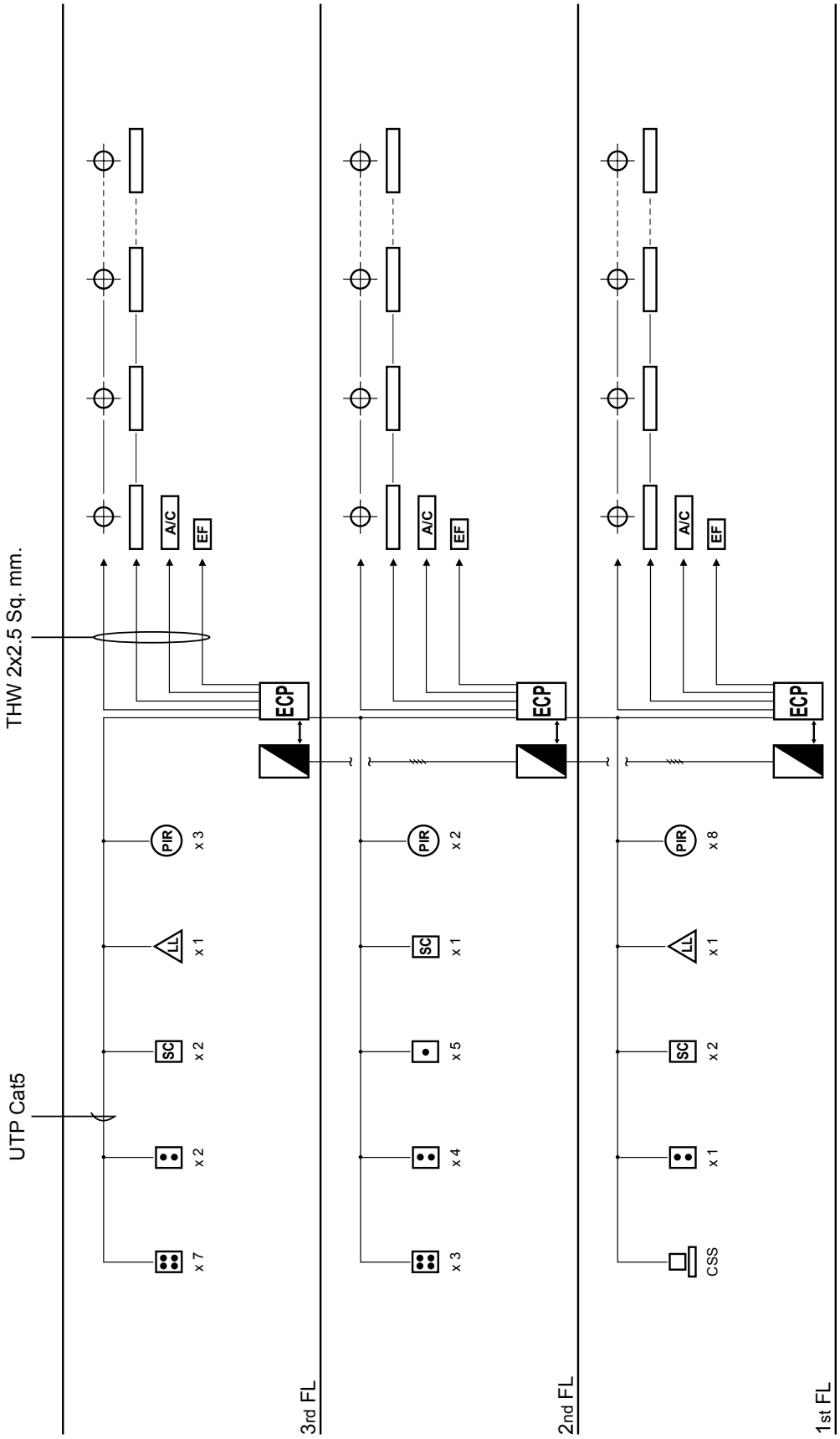
## 9 Example Configurations *(cont'd)*

### Commercial Office Lighting Control System Architecture



# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*




C.I.S. Building - C-Bus Riser Diagram

# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

### Energy Control Panel Schedule

Energy Management System

PROJECT : C.I.S. BUILDING

ENERGY CONTROL PANEL NO. : ECP1 LOCATION : 1st floor

CONNECTED TO : LC1 4CH. RELAY 20A. : 1 SET. 12CH. RELAY 10A : 1 SET. 8CH. DIMMER. 1A : 3 SET.

| Address | Relay / Dimmer | | Circuit | Power | Description | Remark |
|---|---|---|---|---|---|---|
| Unit No. | No. | Amp. | No. | (VA) | | |
| 01 | D1 | 1 | LP1/1 | 100 | west wing downlight | |
| 02 | D2 | 1 | LP1/1 | 80 | west wing downlight | |
| 03 | R1 | 10 | LP1/3 | 310 | exhaust fan west | |
| 04 | D3 | 1 | LP1/1 | 50 | booth downlight | |
| 05 | D4 | 1 | LP1/1 | 50 | booth downlight | |
| 06 | D5 | 1 | LP1/1 | 80 | west walk way downlight | |
| 07 | D6 | 1 | LP1/1 | 50 | booth downlight | |
| 08 | D7 | 1 | LP1/1 | 50 | booth downlight | |
| 09 | D8 | 1 | LP1/1 | 50 | showcase A downlight | |
| 10 | D9 | 1 | LP1/5 | 50 | showcase B downlight | |
| 11 | D10 | 1 | LP1/5 | 50 | showcase C downlight | |
| 12 | D11 | 1 | LP1/5 | 150 | front gate downlight | |
| 13 | R2 | 10 | LP1/7 | 160 | front gate lighting | |
| 14 | R3 | 10 | LP1/9 | 120 | reception lighting | |
| 15 | R4 | 10 | LP1/11 | 120 | reception lighting | |
| 16 | D12 | 1 | LP1/5 | 50 | showcase D downlight | |
| 17 | D13 | 1 | LP1/5 | 80 | mid walk way downlight | |
| 18 | D14 | 1 | LP1/5 | 100 | control room downlight | |
| 19 | R5 | 10 | LP1/13 | 80 | control room lighting | |
| 20 | R6 | 10 | LP1/15 | 310 | exhaust fan control room | |
| 21 | R7 | 10 | LP1/17 | 120 | entrance lighting | |
| 22 | R8 | 10 | LP1/19 | 120 | entrance lighting | |
| 23 | D15 | 1 | LP1/5 | 50 | showcase E downlight | |
| 24 | D16 | 1 | LP1/5 | 50 | showcase F downlight | |
| 25 | D17 | 1 | LP1/21 | 50 | showcase G downlight | |
| 26 | D18 | 1 | LP1/21 | 100 | east walk way downlight | |
| 27 | R9 | 20 | LP1/23 | 2590 | air conditioner unit 1 | |
| 28 | R10 | 20 | LP1/25 | 2590 | air conditioner unit 2 | |
| 29 | R11 | 20 | LP1/27 | 2590 | air conditioner unit 3 | |
| 30 | R12 | 20 | LP1/29 | 2590 | air conditioner unit 4 | |

Note :

# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

### Energy Control Panel Schedule

Energy Management System

PROJECT : C.I.S. BUILDING

ENERGY CONTROL PANEL NO. : ECP2 LOCATION : 2nd floor

CONNECTED TO : LC2 4CH. RELAY 20A. : 2 SET. 12CH. RELAY 10A : 2 SET. 8CH. DIMMER. 1A : 1 SET.

| Address | Relay / Dimmer | | Circuit | Power | Description | Remark |
|---|---|---|---|---|---|---|
| Unit No. | No. | Amp. | No. | (VA) | | |
| 31 | R13 | 10 | LC2/1 | 80 | library lighting | |
| 32 | R14 | 10 | LC2/1 | 480 | office zone A lighting | |
| 33 | D19 | 1 | LC2/3 | 230 | office zone A downlight | |
| 34 | R15 | 10 | LC2/1 | 80 | manager room lighting | |
| 35 | R16 | 10 | LC2/1 | 160 | computer room lighting | |
| 36 | R17 | 10 | LC2/5 | 80 | manager room lighting | |
| 37 | R18 | 10 | LC2/5 | 320 | computer room lighting | |
| 38 | R19 | 10 | LC2/5 | 720 | office zone B lighting | |
| 39 | R20 | 10 | LC2/5 | 80 | manager room lighting | |
| 40 | D20 | 1 | LC2/3 | 150 | office zone B downlight | |
| 41 | R21 | 10 | LC2/7 | 80 | manager room lighting | |
| 42 | D21 | 1 | LC2/3 | 100 | C.I.S. division downlight | |
| 43 | R22 | 10 | LC2/7 | 160 | C.I.S. division lighting | |
| 44 | D22 | 1 | LC2/3 | 150 | office zone C downlight | |
| 45 | R23 | 10 | LC2/7 | 160 | office zone C lighting | |
| 46 | D23 | 1 | LC2/7 | 100 | meeting room downlight | |
| 47 | R24 | 10 | LC2/9 | 160 | meeting room lighting | |
| 48 | D24 | 1 | LC2/3 | 50 | toilet (w) downlight | |
| 49 | R25 | 10 | LC2/9 | 310 | toilet (w) exhaust fan | |
| 50 | R26 | 10 | LC2/9 | 80 | toilet (w) lighting | |
| 51 | D25 | 1 | LC2/3 | 50 | toilet (m) downlight | |
| 52 | R27 | 10 | LC2/9 | 80 | toilet (m) lighting | |
| 53 | D26 | 1 | LC2/3 | 80 | white board downlight | |
| 54 | R28 | 10 | LC2/11 | 310 | meeting room exhaust fan | |
| 55 | R29 | 20 | LC2/13 | 2000 | air conditioner unit 1 | |
| 56 | R30 | 20 | LC2/15 | 2000 | air conditioner unit 2 | |
| 57 | R31 | 20 | LC2/17 | 2000 | air conditioner unit 3 | |
| 58 | R32 | 20 | LC2/19 | 2000 | air conditioner unit 4 | |
| 59 | R33 | 20 | LC2/21 | 2000 | air conditioner unit 5 | |
| 60 | | - | LC2/23 | - | spare | |

Note :

# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

### Energy Control Panel Schedule

Energy Management System

PROJECT : C.I.S. BUILDING

ENERGY CONTROL PANEL NO. : ECP3 LOCATION : 3rd floor

CONNECTED TO : LC3 4CH. RELAY 20A. : 2 SET. 12CH. RELAY 10A : 2 SET. 8CH. DIMMER. 1A : 1 SET.

| Address | Relay / Dimmer | | Circuit | Power | Description | Remark |
|---|---|---|---|---|---|---|
| Unit No. | No. | Amp. | No. | (VA) | | |
| 61 | D27 | 1 | LC3/1 | 100 | graphic design dept. | |
| 62 | R34 | 10 | LC3/3 | 80 | graphic design dept. | |
| 63 | D28 | 1 | LC3/1 | 80 | conference room downlight A | |
| 64 | R35 | 10 | LC3/3 | 320 | conference room lighting A | |
| 65 | R36 | 10 | LC3/3 | 320 | conference room lighting B | |
| 66 | R37 | 10 | LC3/3 | 310 | conference room exhaust fan | |
| 67 | D29 | 1 | LC3/1 | 100 | conference room downlight B | |
| 68 | R38 | 10 | LC3/5 | 160 | personnel admin. Lighting A | |
| 69 | D30 | 1 | LC3/1 | 100 | corridor | |
| 70 | D31 | 1 | LC3/1 | 100 | showroom | |
| 71 | D32 | 1 | LC3/1 | 100 | showroom | |
| 72 | R39 | 10 | LC3/5 | 320 | personnel admin. Lighting B | |
| 73 | R40 | 10 | LC3/5 | 320 | corridor | |
| 74 | R41 | 10 | LC3/5 | 640 | showroom | |
| 75 | R42 | 10 | LC3/7 | 310 | personnel admin. exhaust fan | |
| 76 | D33 | 1 | LC3/1 | 100 | account downlight | |
| 77 | R43 | 10 | LC3/7 | 160 | account lighting | |
| 78 | R44 | 10 | LC3/7 | 310 | account exhaust fan | |
| 79 | R45 | 10 | LC3/7 | 310 | showroom exhaust fan | |
| 80 | R55 | 10 | LC3/9 | 50 | toilet (w) downlight | |
| 81 | R46 | 10 | LC3/9 | 80 | toilet (w) downlight | |
| 82 | R56 | 10 | LC3/9 | 50 | toilet (m) downlight | |
| 83 | R47 | 10 | LC3/9 | 80 | toilet (m) downlight | |
| 84 | R48 | 10 | LC3/9 | 310 | toilet (w) downlight | |
| 85 | R49 | 20 | LC3/11 | 2000 | air conditioner unit 1 | |
| 86 | R50 | 20 | LC3/13 | 2000 | air conditioner unit 2 | |
| 87 | R51 | 20 | LC3/15 | 2000 | air conditioner unit 3 | |
| 88 | R52 | 20 | LC3/17 | 2000 | air conditioner unit 4 | |
| 89 | R53 | 20 | LC3/19 | 2000 | air conditioner unit 5 | |
| 90 | R54 | 20 | LC3/21 | 2000 | air conditioner unit 6 | |

Note :

# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

### BILL OF QUANTITY (BOQ)

PROJECT : C.I.S. BUILDING
TITLE: ELECTRICAL SYSTEM

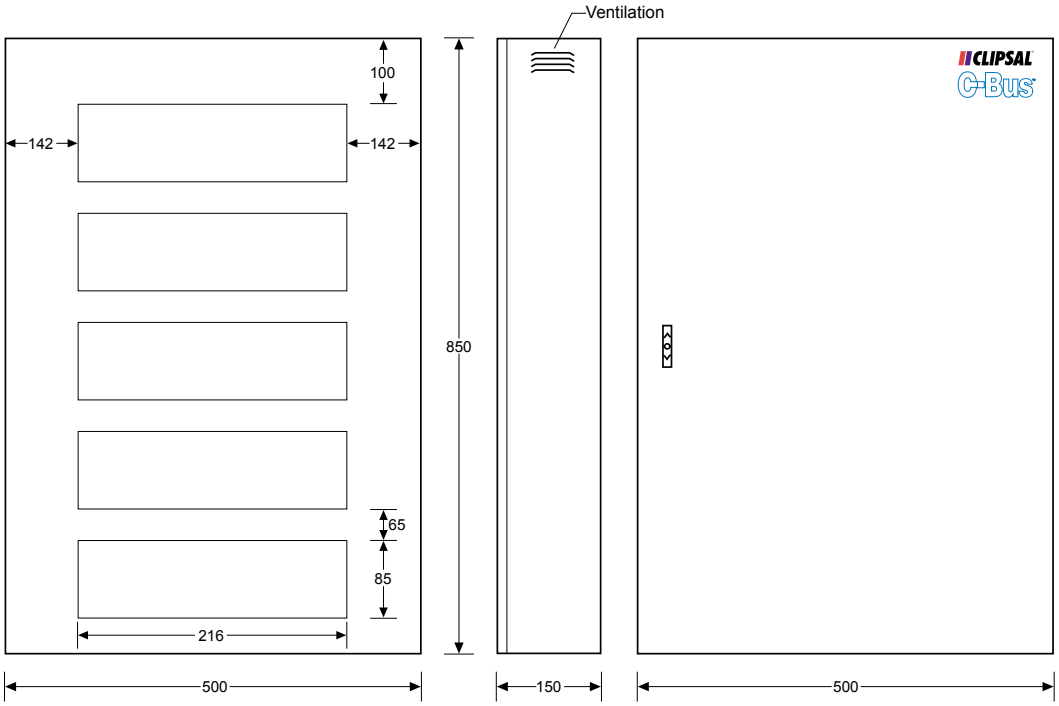
DATE: 29 OCTOBER 2001
DOC. NO.: YUTH/001/002

| NO. | DESCRIPTION | QUANTITY | | USD / UNIT | | | REMARK |
|---|---|---|---|---|---|---|---|
| | | NO. | UNIT | MATERIAL | LABOUR | TOTAL USD | |
| **1** | **ENERGY MANAGEMENT SYSTEM** | | | | | | |
| 1.1 | ENERGY CONTROL PANEL (ECP) | | | | | | |
| | - 4 CHANNEL LATCHING RELAY 20A. | 4 | SET | | | | |
| | - 12 CHANNEL LATCHING RELAY 10A. | 5 | SET | | | | |
| | - 8 CHANNEL DIMMER 1A. | 5 | SET | | | | |
| | - PANEL & ACCESSORIES WIRING | 3 | SET | | | | |
| | - PC INTERFACE UNIT | 1 | SET | | | | |
| | - POWER SUPPLY 240 VAC. | 3 | SET | | | | |
| | SUB TOTAL ITEM 1.1 | | | | | | |
| 1.2 | LOCAL SWITCH & SENSOR | | | | | | |
| | - 1 KEY INPUT UNIT | 5 | SET | | | | |
| | - 2 KEY INPUT UNIT | 8 | SET | | | | |
| | - 4 KEY INPUT UNIT | 10 | SET | | | | |
| | - LIGHT LEVEL SENSOR | 2 | SET | | | | |
| | - PIR OCCUPANCY SENSOR | 13 | SET | | | | |
| | - 4 SCENE CONTROLLER | 5 | SET | | | | |
| | SUB TOTAL ITEM 1.2 | | | | | | |
| 1.3 | CENTRAL SELECTOR SWITCH (CSS) | | | | | | |
| | - DESKTOP COMPUTER | 1 | SET | | | | |
| | SUB TOTAL ITEM 1.3 | | | | | | |
| | | | | | | | |

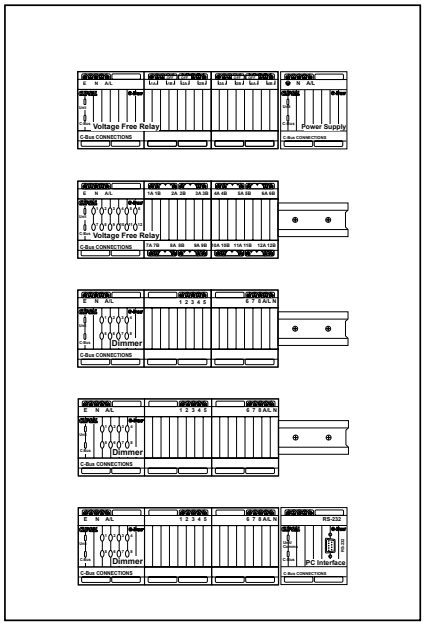
# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

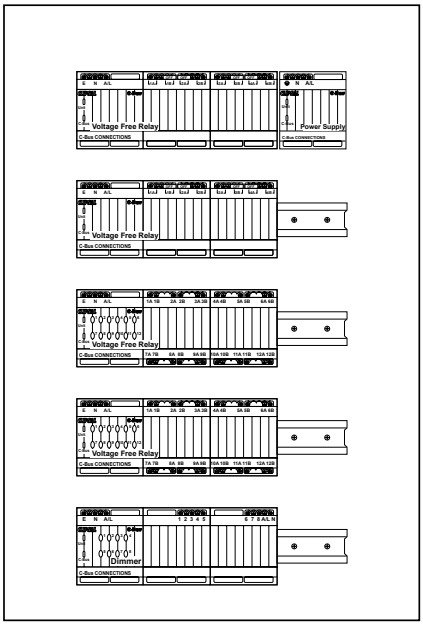
### Energy Control Panel



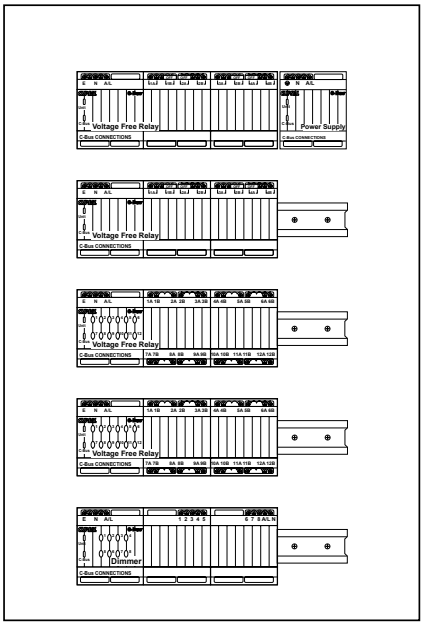

**Inside View** **Side View** **Front View**




**Energy Control Panel (ECP1)**




**Energy Control Panel (ECP2)**

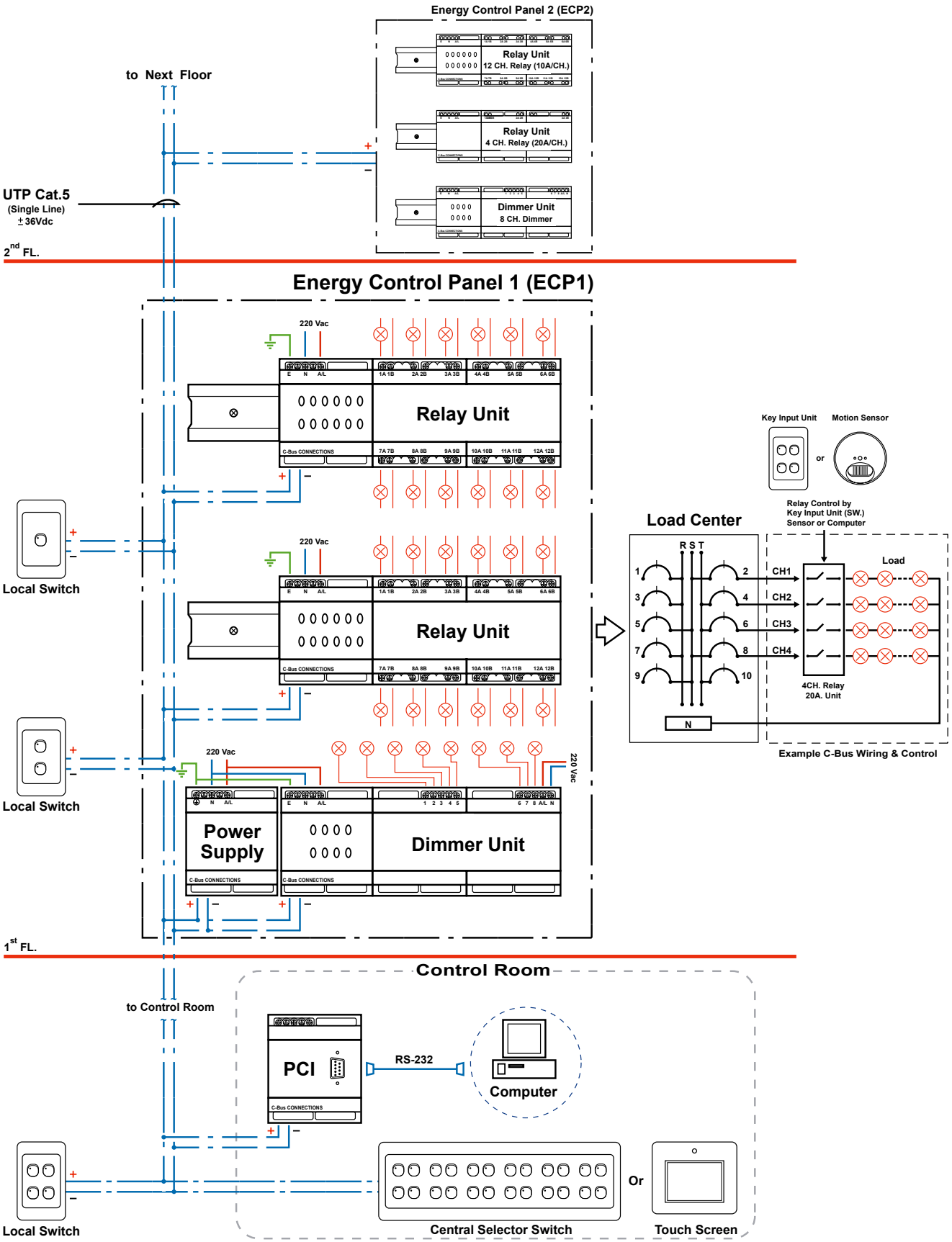



**Energy Control Panel (ECP3)**

# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

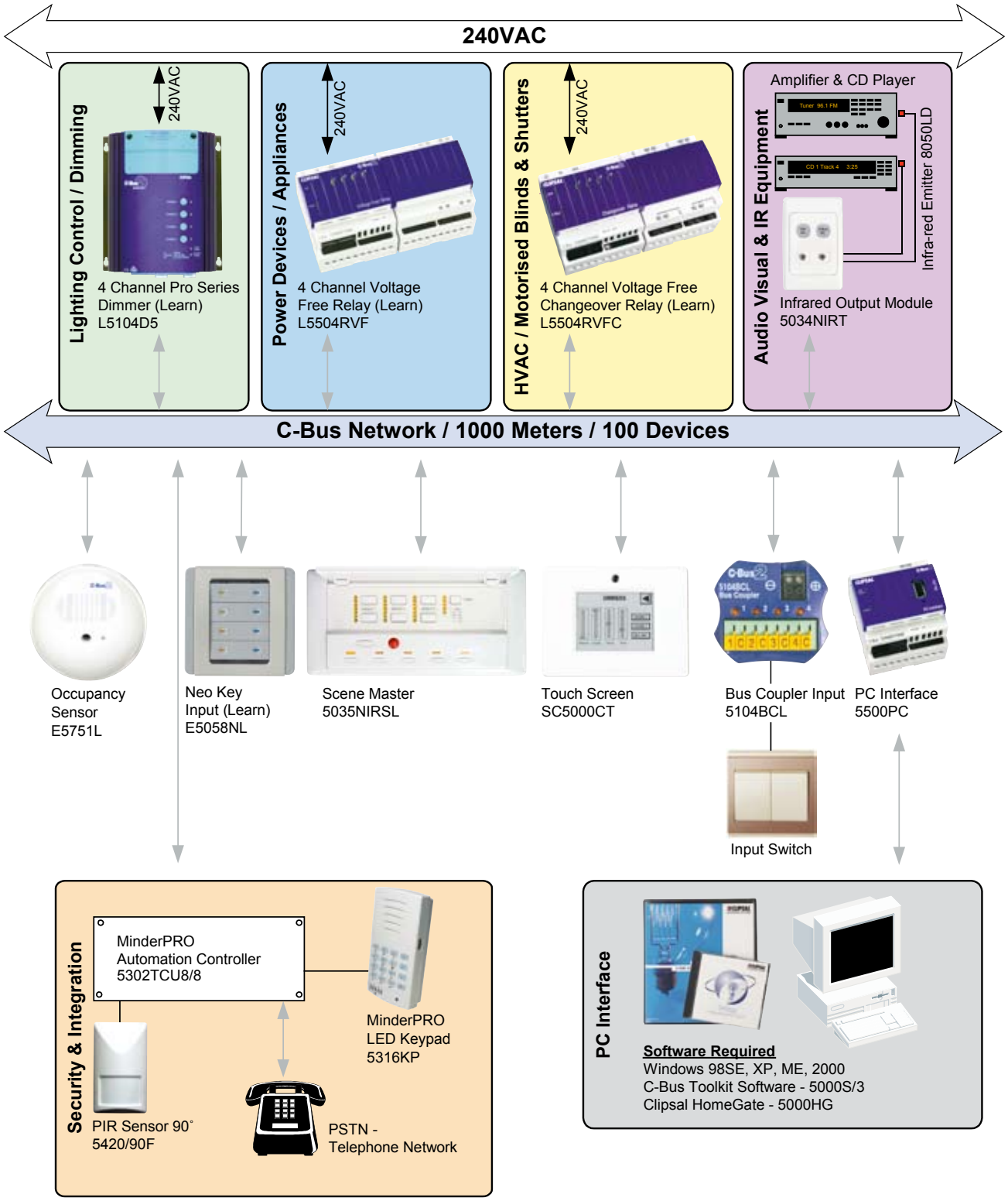
### C-Bus Basic Wiring Diagram



# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

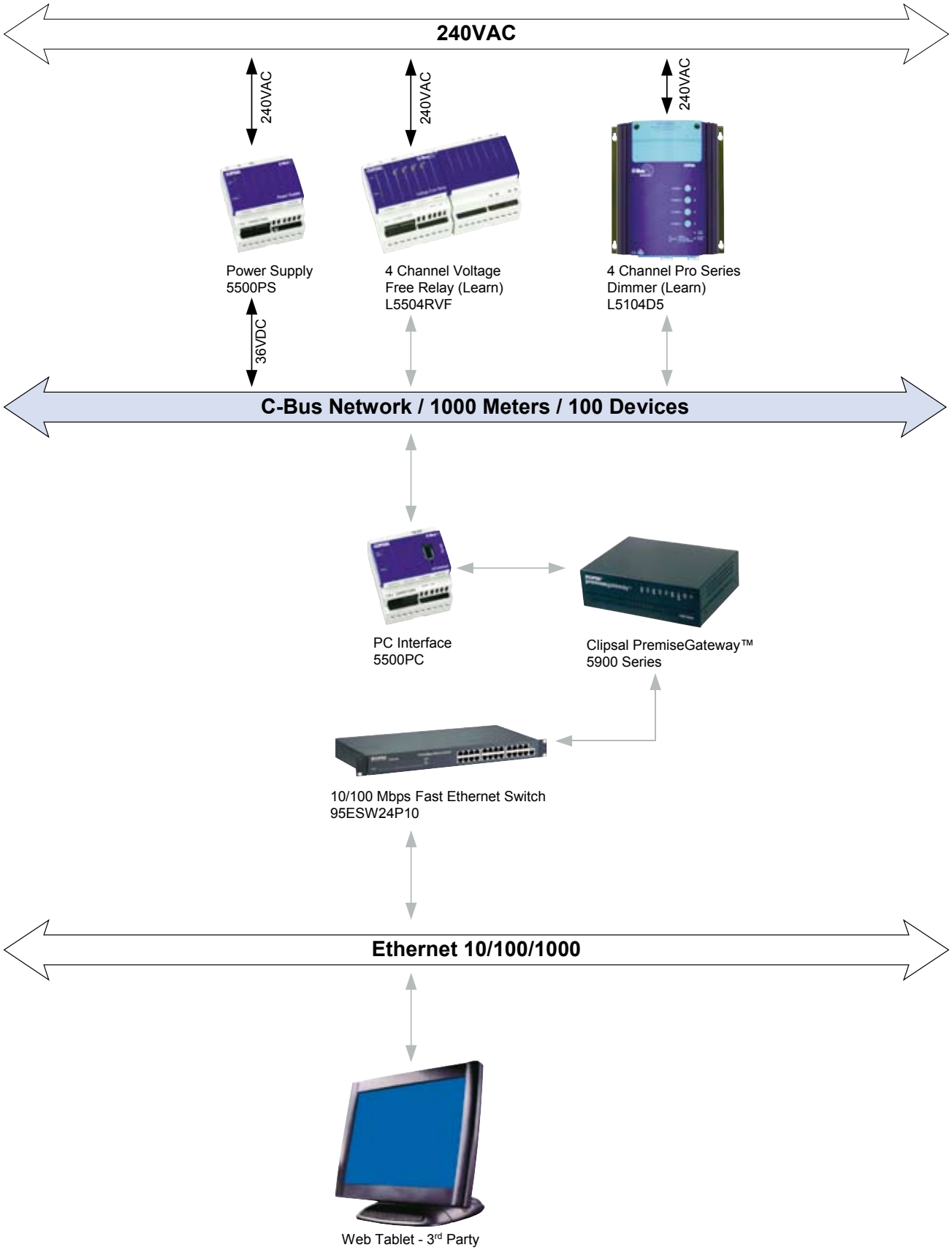
### Integrated Home Automation System



# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

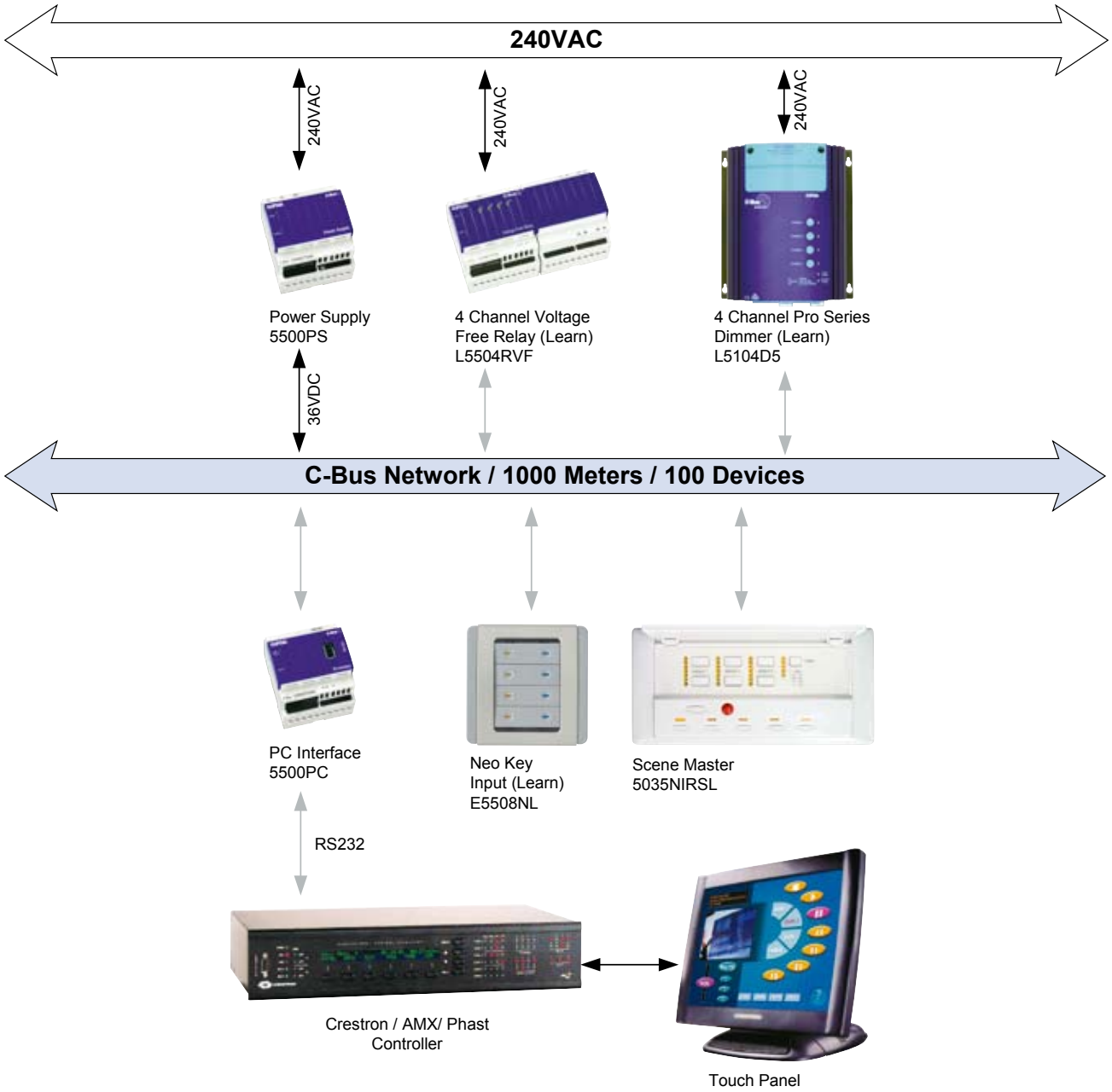
### PDA/WEB Tablet Integration



# C-Bus Design Guide

## 9 Example Configurations *(cont'd)*

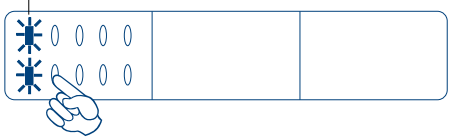
### Integrated to 3rd Party Media Control Systems - Crestron/AMX/Phast



# C-Bus Learn Units Quick Programming Guide

## 1. Entering Learn Mode

Hold down a toggle key on any output unit for 10 seconds.



Unit and C-Bus indicators on Output Units will flash alternatively.

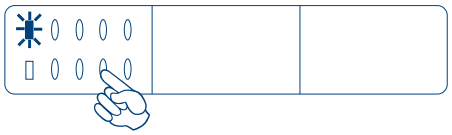
*Note: These two indicators may initially flash together for up to 20 seconds before flashing alternatively.*

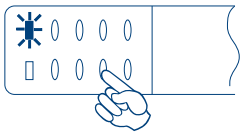
All loads and indicators will turn off except the one pressed which will turn on.

All indicators on Input Units will turn off.

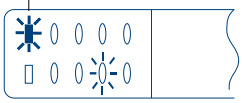
## 2. Choosing the Electrical Load to be Controlled

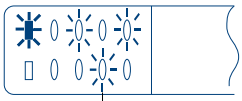
Press the toggle key switches on the Output Units which turn on the desired lights.





Unit and C-Bus indicators continue to flash alternatively.



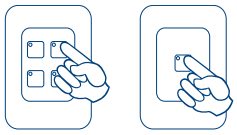


The selected lights and indicators are switched on.

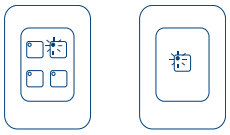
## 3. Selecting the Key Input Switches to Control the Chosen Loads

### 3A. Setting Input Keys as On/Off Switches

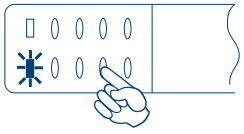
Press the Key Inputs required to control the selected loads.



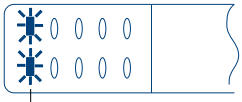
The switches required to control the loads will be illuminated.



Exit Learn Mode by pressing any toggle switch on a Relay Output Unit for 2 seconds.



C-Bus2 will now Learn the relationship and will return to normal operation.



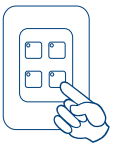
Units and C-Bus indicators will stop flashing.

# C-Bus Learn Units Quick Programming Guide

## 3. Selecting the Key Input Switches to Control the Chosen Loads

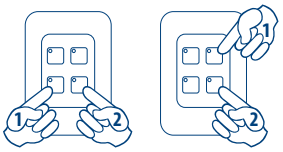
### 3B. Setting Input Keys as Dimmer Switches

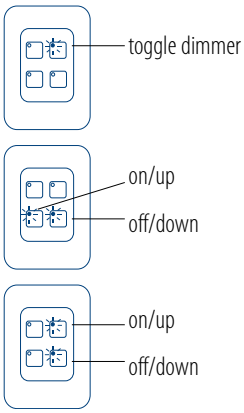
Press one key for a single operated dimmer.



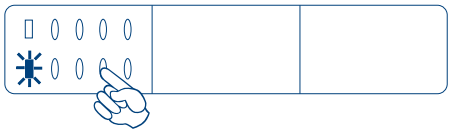
**OR**

Press two keys on the same unit for two key operated dimmer. The first key pressed will be an on/up key and the second key pressed will be the off/down button.

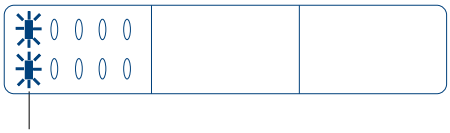



Exit Learn mode by pressing any toggle switch on a Dimmer Output Unit for 2 seconds.



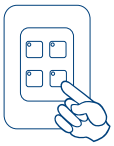
C-Bus2 will now Learn the relationship and will return to normal operation.



Units and C-Bus Indicators will stop flashing.

### 3C. Setting Input Keys as Timer Switches

Hold down a key until the indicator comes on, then release the key.



Continuing to hold down the key will cause the indicator to double flash every one second.

The key switch will flash at one second intervals.

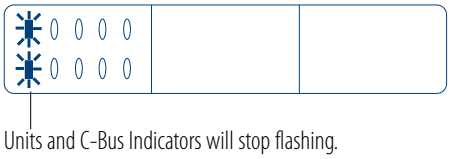
*Note: Exiting Learn Mode at this point will make the key a 5 second timer.*

Each double flasah represents 5 minutes.

For example, releasing the key after 4 double flashes gives a 20 minute timer.

Exit Learn Mode by pressing any toggle switch on a Relay or Dimmer Output Unit for 2 seconds.

C-Bus2 will now Learn the relationship and will return to normal operation.

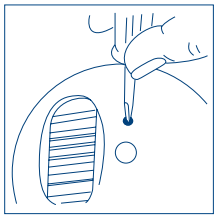


Units and C-Bus Indicators will stop flashing.

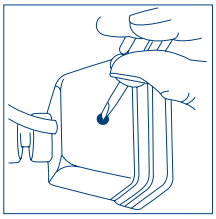
# C-Bus Learn Units Quick Programming Guide

## 4. Setting C-Bus2 Movement Sensors to Control the Chosen Electrical Loads

Using a screwdriver, change the light level setting on the bottom of the C-Bus2 Movement Sensor. → The red indicator behind the Sensor Windor will **flash once.**



***Indoor Sensor***



***Outdoor Sensor***

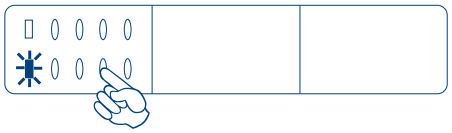
Wait for the indicator to **double flash** (after 5 seconds) then immediately (within 1 second) turn the adjusting trimpot back the other way. → The red indicator behind the Sensor Window will then come on and stay on. The unit is now ready to learn its time out.

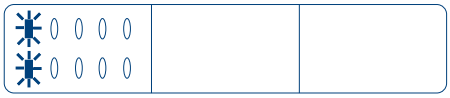
*Note: If the indicator stays off then go back to the first step.*

Changing the setting again will cause the indicator to begin double flashes. → Each double flasah represents a 5 minute timer duration.

Turn the adjustment trimpot back the other way. → The indicator will single flash showing that a timer function has been set.

Exit Learn Mode by pressing any toggle switch on a Relay or Dimmer Output Unit for 2 seconds. → C-Bus2 will now Learn the relationship and will return to normal operation.





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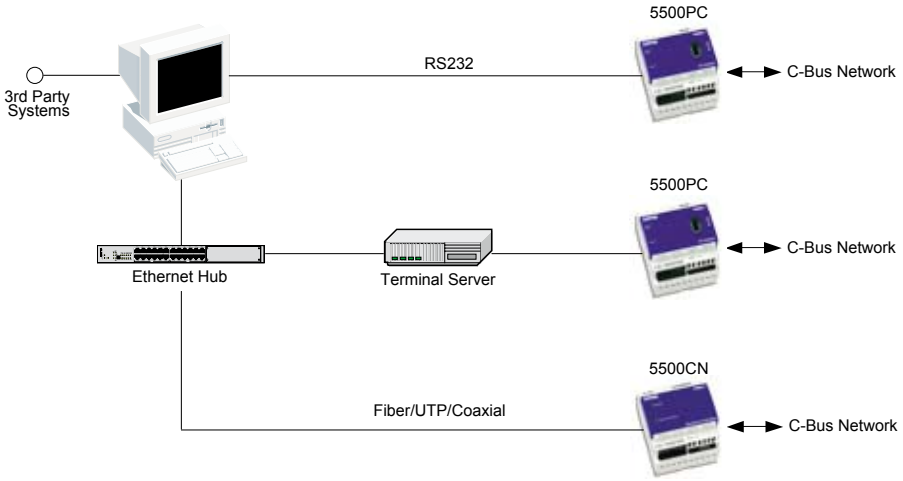
# C-Gate Server Application Software

C-Gate is a powerful server application, designed to provide a high-level interface between third party systems and the C-Bus control system. Developers and system integrators can use C-Gate to integrate their products to C-Bus.

A high level command and event interface allows control and monitoring of a C-Bus network without detailed knowledge of C-Bus protocol. The C-Gate Server software can be located on a separate server machine or can run in the background on a personal computer.

C-Gate uses industry standard TCP/IP protocols to support:
- Multiple C-Bus networks - connected to a TCP/IP backbone network.
- Multiple connections - from one or more front end or building management systems using TCP/IP sockets.
- Simple connection to web servers for Internet based control and monitoring.



***5000CG***

## PRODUCT FEATURES

- Open standard TCP/IP interface for integration to third party systems - Building management systems, CCTV, access control, fire alarm, HVAC, SCADA, Java applications, Web Servers and Web Browsers.
- Utilise standard Ethernet technology products to network multiple C-Bus networks over a standard LAN or WAN.
- High speed monitoring & control of Clipsal C-Bus devices.
- Utilise standard Ethernet technology products to run C-Bus over different media i.e. fiber optic, UTP or coaxial cable.
- Connectivity of multiple C-Bus networks through serial, terminal server or C-Bus Network Interface options.
- A number of C-Bus networks can be managed in parallel high speed, hence control is rapid and monitoring is accurate even when multiple networks are involved.
- C-Gate allows C-Bus networks to be connected across TCP/IP backbone network as well as through a local TCP/IP interface.
- Operates in Windows and Linux OS environments.

| CATALOGUE NUMBER | DESCRIPTION |
|---|---|
| **5000CG** | C-Gate Software, Single Network License |
| **5000CG5** | C-Gate Software, Five Network License |
| **5000CG10** | C-Gate Software, Ten Network License |
| **5000CG50** | C-Gate Software, Fifty Network License |
| **5000CGUNL** | C-Gate Software, Unlimited Network License |

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